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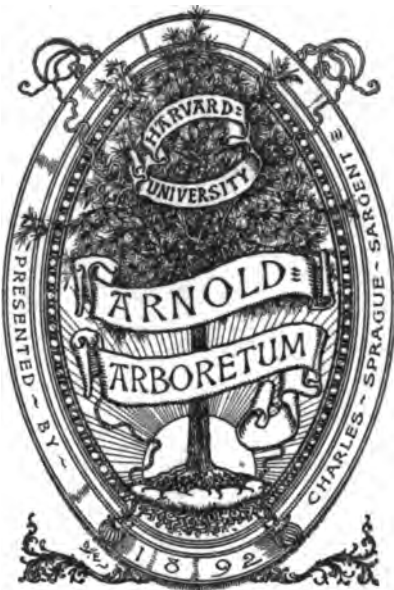
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SIR TREVOR LAWRENCE

BART., K.C.V.O., V.M.H.,

PRESIDENT OF THE ROYAL HORTICULTURAL SOCIETY FOR THE PAST TWENTY-ONE YEARS,

THE SIXTY-NINTH VOLUME OF "THE GARDEN"

Is dedicated.

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## WEEKLY:

**PER ANNUM.**



JANUARY.			FEBRUARY.			JUNE.			MAY.		
1	M	King's Taxes due.	1	Th	Partridge and Pheasant Shooting Ends. Moon 1st	1	P	French Hort. Soc. Meeting.	1	Tu	SS. Philip and James. Moon 1st quart. 77 p.m.
2	Tu	Nat. Am. Gard. Ass. Mtg. Moon 1st quart. 5:52 p.m.	2	F	Handicrafts. [Quarter 0:31 p.m.]	2	Th	Writ Sunday. Prince of Wales bn. 1865. Sun r.	2	W	Sheffield and Lewes Hort. S. Mtgs. [R.H.S. Mtg.
3	W	W. H. Ainsworth died 1862. Lewes R.S. Mtg.	3	M	French Hort. Soc. of London Meeting.	3	M	Bank Holiday. [5h. 50m., s. 8h. 7m.]	3	Th	
4	Th		4	Tu	4th Sun. after Epiphany. Sun r. 7h. 30m., s. 4h. 55m.	4	Tu	Nat. Am. Gard. Mtg. R.H.S. Colonial Fruit Show	4	F	French Hort. Soc. Meeting.
5	F		5	W	Victoria Cross associated 1866.	5	W	Full Moon 9:12 p.m.	5	S	3rd Sunday after Easter. Sun r. 4h. 26m., s. 7h. 28m.
6	S	Epiphany. Ann. Dinner French Hort. Soc. of Lon.	6	Th	Nat. Am. Gard. Ass. Mtg.	6	Th	[2 days]	6	Tu	Full Moon 2:10 p.m.
7	M	1st Sun. after Epiphany. [Sun r. 8h. 0m., s. 4h. 6m.]	7	Th	Sheffield and Lewes Hort. Society Meetings.	7	F	Charles Dickens died 1870.	7	W	East Angli. H. Club Mtg. Roy. Caledonian Sh. (2).
8	Tu	Fire Insurance ceases. R.H.S. Meeting. Full Moon	8	F	Annual Meeting Royal Gardeners' Orphan Fund.	8	S	Trinity Sunday. Sun r. 3h. 46m., s. 8h. 13m.	8	Th	
9	W	East Anglian Hort. Club Ann. Dinner. [Full Moon 7:45 a.m.]	9	M	Half-holiday.	9	Th	St. Barnabas.	9	F	4th Sunday after Easter. Sun r. 4h. 14m., s. 7h. 39m.
10	Th	2nd Sun. after Epiphany. Sun r. 8h. 3m., s. 4h. 15m.	10	Tu	Sextagesima Sunday. Sun r. 7h. 4m., s. 3h. 4m.	10	M	St. R.H.S. Meeting.	10	S	Old May Day.
11	Th		11	W	R.H.S. Annual Meeting.	11	Tu	Sheffield Chrys. Soc. Mtg. East	11	Tu	Moon last q. 7:54 p.m.
12	F		12	Th	St. Valentine.	12	Th	Corpus Christi.	12	W	
13	S		13	F	Old Candlemas. [Angli. H. Club Mtg.]	13	F		13	Th	King of Spain born 1866.
14	M		14	M	Moon last quarter 4:23 a.m.	14	M		14	F	Emperor of Russia born 1868.
15	Tu		15	Tu		15	Tu		15	S	W. E. Gladstone died 1898.
16	W		16	W		16	W		16	Th	
17	Th		17	Th		17	Th		17	F	
18	F		18	F		18	F		18	S	
19	S		19	S		19	S		19	Th	
20	Tu		20	Tu		20	Tu		20	F	
21	W	John Ruskin died 1900.	21	W		21	W		21	S	
22	Th	3rd Sun. after Epiphany. Sun r. 7h. 55m., s. 4h. 27m.	22	Th		22	Th		22	Th	
23	F	Acc. of King Edward VII. 1901.	23	F		23	F		23	F	
24	S	R.H.S. Meeting.	24	S		24	S		24	S	
25	Tu	Croydon Gard. Soc. Ann. Din. New Moon 5:9 p.m.	25	M		25	M		25	Tu	
26	W		26	Tu		26	Tu		26	W	
27	Th		27	W		27	W		27	Th	
28	F		28	Th		28	Th		28	F	
29	S	German Emperor born 1859.	29	F		29	F		29	S	
30	Tu	4th Sun. after Epiphany. Sun r. 7h. 47 m., s. 4h. 39m.	30	Tu		30	Tu		30	Th	
31	W	C. H. Spurgeon d. 1892.	31	W		31	W		31	F	



*Supplement to THE GARDEN, January 6th, 1906.*

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# THE GARDEN.

No. 1781.—VOL. LXIX

JANUARY 6, 1906.

## THE OLD YEAR & THE NEW

WITH the issue of this number another year dawns, and once again the pleasant opportunity is given of wishing our readers a very Happy New Year, and thanking those who have helped us so willingly in the past. We look forward with even greater hopefulness to the work that lies before us, happy in the belief that the earnest support of our contributors will be given with the same heartiness as in the year that has closed.

Horticultural events in 1905 were more numerous than usual, and it becomes more difficult to cope with the stream of exhibitions which flows unceasingly throughout the year. The centre of activity has been, as usual, the Royal Horticultural Society, whose shows and fortnightly meetings are not only beautiful and instructive in themselves, but a meeting-place for the ardent horticulturist, whilst the fortnightly lectures have reached a high level of excellence. It is a source of satisfaction to know that the annual exhibition in the Temple Gardens still attracts the general public, and whilst those responsible for it continue to maintain its reputation people will flock to see this wonderful display of British horticultural skill. We think the holding of a second show some weeks later is not likely to prove a success, and for the reason that it is possible to have too much even of a good thing. The exhibition held in the grounds attached to the Chelsea Hospital was very charming, but scantily attended. The Royal Horticultural Society has accomplished a remarkable work without official aid in furthering scientific and practical horticulture in this country, and it must gratify everyone who has the welfare of horticulture at heart to know that its financial position is exceedingly strong. The letting of the Hall we believe has helped considerably towards the extinction of the fast-dwindling debt.

The National Rose Society continues to flourish in the happiest way. It is controlled by men who are earnest in their work, and under the presidency of Mr. C. E. Shea its usefulness has extended. The "Official Year Book" will have a strong influence not only in acquiring a larger membership, but in spreading a knowledge and love of the flower

of flowers. Naturally there was considerable misgiving as to the result of the migration from the Temple Gardens to the beautiful grounds of the Royal Botanic Society for the annual metropolitan show, but good advertising, lovely summer weather, and shady grounds set all anxieties at rest.

The Sweet Pea and Potato societies held their usual yearly exhibitions, which in both cases were even more interesting than those of the previous year. The widespread love for the Sweet Pea is astonishing. We see how from a simple garden flower it is possible to produce through the hybridiser's skill a wealth of colour and form unknown a few generations ago. The name of Eckford, whose work was crowned with such complete success, is written in gardens throughout the British Isles and over the seas.

In the botanical world the recent resignation of the director of the Royal Gardens, Kew, has ended an official connexion with this famous establishment which has had an important bearing upon the scientific progress of the country. The new director is a man of power and of knowledge, and will maintain, we are assured, the position Kew has attained under the leadership of Sir William Thiselton-Dyer.

Many famous horticulturists and scientists have passed away during the year. Familiar faces will be seen no more, and we know not who may cross the stream in the year that has begun. This, however, we do know, that the work of those who have left this world has had an influence for good in promoting the welfare of horticultural pursuits in these isles. During the present year there will be much the same round of events, but one, we think, will stand out with unusual prominence—the great hybrid conference to take place next July under the auspices of the Royal Horticultural Society.

## THE EDITOR'S TABLE.

### CHRISTMAS FLOWERS FROM DUNROBIN.

A delightful box of flowers comes from Mr. Melville, Dunrobin Gardens, Golspie, Sutherland, and the following note shows the great variety of plants that were in bloom so late in the year: "I am sending a few flowers gathered out of doors on Christmas Day, which will show the mildness of the weather we have had of late, viz., *Veronica Andersoni*, *Marie Louise Violette*, *Chrysanthemums*, *Christmas Roses*, *Violas*,

double *Primroses*, *Roses*, &c. The hardest frost we have experienced this autumn was 5° on November 18 and 19, and 5½° on November 29. The whole of December has been unusually mild. Christmas Day was fine, clear, and calm, with slight white frost in the forenoon."

### THE LOQUAT.

We have received from Mr. G. Camp, gardener to E. Byrom, Esq., Culver, Exeter, a few flowering shoots of *Photinia* (*Eriobotrya*) *japonica*, the Japan Medlar, which has been flowering in the open against a south wall since the first week in October. The severe frost seems to have had no effect whatever on its blooming. Our correspondent writes: "I am sending these flowers because I do not think it is generally known that the Loquat is so hardy."

## THE KEW LAKE.

THERE is probably nothing in landscape gardening so difficult to deal with, and so seldom dealt with successfully, as what is called "artificial water." It may be taken for granted that it is a thing that everyone desires in any attempt at a considerable landscape effect. It is a pretty expensive hobby, and the result is often rather a measure of the wealth of the owner than of his taste.

It may, of course, be the affection begot of long acquaintanceship—though I do not think it is—but I know no piece of water of artificial origin which gives me such solid satisfaction as the lake in the arboretum at Kew. The accompanying illustration is a view of it looking south—not by any means the most striking of many—but still, and perhaps for that reason, characteristic of its treatment. The Editor has asked me to write a few words to accompany it. It seems to me that I can best comply with his request by explaining why I think this particular bit of water is so successful, or at any rate why it pleases me. And I do this with the less hesitation because, though in detail, it has been my constant care, the lake was not my creation. It was begun in 1856 by Sir William Hooker, and completed in its essential features by Sir Joseph Hooker in 1870.

The first point is, I think, its moderate size; it covers a little more than 4½ acres. I do not mean to say that large pieces of water have not their own charm. But then they are apt to dominate the landscape instead of being an element in it. A piece of water should be an item in a composition, and not its master. It is a common thing in a large domain to form a sheet of water by throwing a dam across a shallow valley, and allowing a stream to fill the hollow. The result is rather a reservoir than a lake. The dam is always obvious; it may be skilfully planted with trees which, no doubt, mask it



VIEW OF THE LAKE AT KEW (LOOKING SOUTH).

at the expense of closing the only extended view the lie of the ground affords. There is usually a boat-house. But rowing under such conditions is an amusement apt to become monotonous.

Supposing, then, the lake to be of moderate size, the first indispensable condition is that it should not be seen all at once. The fundamental principle of all landscape gardening is the excitement of curiosity. Every step should invite some further exploration and reward with some new but not final discovery. The lake should therefore be broken up with islands relatively large in size, but set off with ample water surfaces. The islands should be heavily wooded with well disposed clumps of trees. These give effects of light and shadow on the water which are often in striking contrast. The neighbouring banks in this case should be wooded, too, but more sparsely. Where the lake is more open and the banks barer, the vegetation on the islands should be kept thinner and lower.

The margins should avoid any stiff or hard outline, and should advance here and there into promontories, which will define corresponding bays. The former should be accentuated by boldly placed trees, or may be clothed with shrubs. The bays may be edged with well-chosen water plants, which should not be allowed to form a continuous hedge, but should be broken here and there to allow the turf to slope down to the waterside.

One of the charms of water is that it enhances by reflection any colour effect. This may be taken advantage of along the banks and on the islands by planting bold clumps of shrubs or such herbaceous plants as, if not actually aquatic in habit, like a moist subsoil. Even in winter a charming effect has been obtained at Kew by planting groups of coloured-bark Willows on one of the islands. When the sun catches them they light up like lambent flame.

Water surfaces should be allowed to produce their own effect, and should not be allowed to be covered up with floating plants. If this is neglected the lake degenerates into a swamp. Clumps of Water Lilies should be kept near the banks, and not at such a

distance as to make the beauty of their flowers inconspicuous.

I have said above that a lake should not be merely an object in itself, but an item in a composition. When made, the task of weaving it, as it were, into its surroundings is best accomplished gradually, and is often effected, as at Kew, by judicious cutting out. Two objects should be aimed at: the one is to open up points of view in which the presence of water will tell; the other is to obtain a pleasing balance in the disposition of trees and foliage. No rules can be laid down for the latter, except those which apply to any design in which the total effect depends on the way in which the details are distributed.

Kew.

W. T. THISELTON-DYER.

## PRIZES OPEN TO ALL.

### WALL GARDENS.

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA  
are offered for the best answers to the following questions:

1. Describe briefly how a wall should be constructed for wall plants.
2. Describe the way the plants should be inserted in both rough stone and brick walls.
3. Describe the sowing of the seed in the wall. Is it better to plant seedlings or to sow seed, and when is the best time both to plant and sow?
4. Name the most beautiful spring, summer, and autumn-flowering plants for sunny walls.
5. Name the most suitable plants for a shady wall and those that give the best effect in winter.
6. Describe the way to treat an old mossy wall which it is wished to sow or plant.
7. How should the plants be treated at all seasons?

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

January 9.—Royal Horticultural Society's Exhibition and Meeting.

January 10.—East Anglian Horticultural Club's Annual Dinner. Sheffield Chrysanthemum Society's Meeting.

January 18.—Gardeners' Royal Benevolent Institution's Annual General Meeting and Election of Pensioners.

January 23.—Royal Horticultural Society's Exhibition and Meeting.

January 24.—Croydon Gardeners' Society's Annual Dinner.

**Mr. R. I. Lynch.**—We are pleased to hear that Mr. Lynch, curator of the Botanic Gardens, Cambridge, is to receive the honorary degree of M.A. from the University of Cambridge in recognition of his services to botanical science.

**Flowers on Christmas Day.**—We hear a great deal of the South-West, but I have gathered here to-day four Roses in the open garden, and have two plants of *Lapageria rosea* still in flower on the front of the house. Pretty good for Christmas Day in Kent.—*MEDWAY, The Grange, Benenden, Cranbrook.*

**Primula floribunda.**—Bright yellow flowers are attractive at all seasons, and especially in the winter months. This *Primula* blooms over a long period, and this without needing a warm house. It has been a great favourite of mine for many years, and I once tried crossing it with *P. obconica* without success. It has occurred to me whether it was one of the parents of *kewensis*. This *Primula* is easily raised from seed. Last March we sowed a pan of it, and had a large number of plants from a shilling packet. Many fail to raise this and many other small-seeded *Primulas*, such as *obconica*, &c., owing to their covering the seed with soil. Our method is to make the surface very fine and level, and then sow the seed, slightly dusting very fine soil or sand over it. Cover with a piece of glass, and keep in a moist place until it has germinated. The seedlings being so small they must be kept close to the glass till strong enough to prick out, when we give them frame treatment through the summer. Remove to a greenhouse in autumn. At the close of the year we have good pans full of flowers which look charming in suitable places in rooms. We find them most useful to grow in small pots to put in vases on the dinner table.—*J. CROOK.*

**Plectranthus crassus.**—In the early part of the present year this new Central African Labiate formed a very striking feature at Kew, and it is now again one of the most notable plants flowering in the T range, where, in the company of *Begonias*, *Eranthemums*, &c., it is quite at home. Botanically it is closely related to the *Coleus*, and like *Coleus thyrsoides*, a native of much the same region, it bids fair when better known to be a decidedly popular plant, as the flowers are freely borne, are of a pleasing tint, and a succession is kept up for some time, added to which it is of easy culture. The *Plectranthus* in question branches sparingly, the plants at Kew having stout, erect stems, clothed with ovate leaves of a pale green tint. The flowers, which are borne in rather narrow terminal spikes, are arranged in whorls, which continue to develop, and thus maintain a succession for a considerable period. Its propagation and culture are very easy, the main point to bear in mind being that the finest spikes are borne on the stoutest stems, hence they must not be stopped much to ensure branching, as such plants flower but poorly. Besides its own intrinsic merits this *Plectranthus* may be of value to the hybridist, for crosses between this and *Coleus thyrsoides* seem quite possible.—*H. P.*



**Mr. George Dickson**, head of the firm of Messrs. Alex. Dickson and Sons, Newtownards, was paid a high compliment some few days ago on the occasion of his completion of fifty years' presidency of the Newtownards Horticultural Society. The *Newtownards Chronicle* contains a portrait and a long and warm appreciation of the services rendered by Mr. George Dickson, not only to the local horticultural society, but to the district generally. The committee of the horticultural society unanimously decided that the jubilee celebration of their president should not pass without recognition, and they took advantage of the recent annual reunion to present him with his portrait as a memorial of his work.

**Plumbago rosea.**—In the cool end of the stove, or in the intermediate house, this *Plumbago* forms a beautiful winter picture, as the long terminal spikes are thickly studded with bright rosy red blossoms, and seen in a mass or group it is most effective. Though quite an old plant, for it was introduced from the West Indies as long ago as 1777, this *Plumbago* is scarcely grown to the extent that one might expect, though I believe it has been taken in hand more within the last three or four years than it previously was. It is not at all difficult to grow, as cuttings strike root readily in early spring, and thrive well in ordinary potting compost. There is a variety (*occinea*) in which the flowers are brighter in colour than those of the type, but it is scarcely as free a grower. In the temperature suitable for this *Plumbago* many beautiful flowers may be had at this season, notably the *Jacobinias*, *Eranthemums*, *Begonias*, and others.—T.

**The small-flowered Camellia (C. Sasanqua).**—Though the ordinary *Camellia japonica*, represented in gardens by varieties innumerable, may be had in bloom during December if the plants are given gentle heat, such a stimulus is not needed to induce *C. Sasanqua* to flower at the same period, as in a cool house this naturally begins to bloom before the end of the year. The species under notice forms a freely-branched bush. The shoots are altogether more slender than those of *C. japonica*, and the leaves much smaller, while the flowers are only from 1½ inches to 2 inches across. There are several forms, the typical kind having pink blossoms, while there is a white-flowered variety, and another with the leaves variegated with creamy white. The Japanese catalogues give several varieties of *Camellia Sasanqua*, but some of them, particularly those with semi-double blossoms, are probably hybrids between this species and *C. japonica*. The propagation of *Camellia Sasanqua* by cuttings is not difficult, whereas *C. japonica* does not readily strike. The introduction of *C. Sasanqua* dates back for nearly a century, but though far from common now it is at the present day much better known than it was twelve years ago. It is a favourite shrub in Japanese gardens, being justly valued from the fact that the flowers are there produced during the late autumn months.—T.

**New Zealand Veronicas.**—Though some of the dwarf shrubby *Veronicas* from New Zealand are rather difficult to grow satisfactorily, there are several which succeed in any ordinary good soil and in somewhat trying atmospheric conditions. These plants cannot be regarded as especially adapted for towns, yet a few of them not only exist, but develop into very presentable specimens in extremely unfavourable metropolitan districts. *Veronica Traversi*, for instance, thrives in some of the smokiest parts of the East End, the chief aid to its healthy progress being an occasional cleansing of the foliage from the sooty deposits. In pots it seems more satisfactory than in borders, one reason being that the supply of water can be better controlled, and in repotting the soil can be partly renewed. Still, it is only in the pure air of country districts that *V. Traversi* is seen in its perfection. In Bedfordshire

and Buckinghamshire gardens I have noted strong, handsome bushes that for vigour of growth and foliage were so far superior to examples of the species as seen in suburban gardens that they were scarcely recognisable at first glance. It is surprising, however, what a power of adaptation to varied circumstances the plant possesses. *V. Stuarti* is also a compact-growing species, with short, closely-set, bright green leaves. *V. buxifolia* is of more straggling growth, with dark green small leaves, those at the tips of the growth being of a lighter and brighter tint. *V. anomala* is a neat little bush, with upright growth and small, sharp leaves, much more suggestive of an *Epacris* than that named *V. epacridea*, which is a curious little plant of a yellowish green shade, imparting a rather unhealthy appearance to it. *V. diosmefolia* forms a fine, healthy bush 4 feet high and as much in diameter, and thrives well in metropolitan gardens. One of the most distinct of the smaller-growing sorts is *V. decumbens*, which has slender and very slightly branched stems about a foot high, bearing ovate or nearly round leaves, which, being cupped or hollowed, impart a peculiar appearance to the plant. I have grown many others under varied conditions of soil and atmosphere, some of which have proved satisfactory and others quite the reverse, but those named here have not caused much trouble, though they are just as impatient of a stagnant water-logged state of the soil as they are of a dry condition, hence they often do well on a rockery if not too much exposed to the hottest sunshine.—R. L. CASTLE.

#### **Tillandsia carinata.**

This is the correct name of the pretty free-flowering Bromeliad, known generally in gardens and nurseries as *Vriesia brachystachya*. It is one of the most readily grown of its class, and the bright coloured flowers brighten up the stove during winter. It is altogether a small grower, as neat flowering examples may be had in pots 4 inches or 4½ inches in diameter, the whole plant, flower scape included, being not more than a foot in height. The light green recurving leaves are arranged in a vasiiform-like manner, and at all seasons are very pleasing, but, of course, the plant is additionally attractive when in bloom. The flower-stem, which well overtops the foliage, is furnished on

its upper part with two opposite rows of large boat-shaped bracts of a purplish crimson at the base, which hue gradually merges into the orange of the upper part. The flowers are yellow, but they do not protrude far beyond the bracts, and in addition they do not last long, hence they cannot be regarded as the most important part of the inflorescence, the bracts themselves occupying that position. The plant needs good drainage, a mixture of sand and peat, and a liberal amount of water when growing.—T.

## ROYAL GARDENS, KEW.

THE LATE DIRECTOR.

THE resignation of the director of the Royal Gardens, Kew, is an event of more than passing interest, especially when there is a record of devoted service to botanical science and horticulture extending over a period of nineteen years. Sir William Turner Thistleton-Dyer has left the mark of a strong personality on the splendid gardens which he has brought to remarkable perfection. All who have delight or interest in horticulture owe an immense debt of gratitude to the late director, in that he has so raised their horticultural standing as to have made them a living exposition of a vast collection



SIR WILLIAM TURNER THISTLETON-DYER, K.C.M.G., F.R.S.

of plants, so grown and arranged as to make the gardens a place of beauty, and of the highest instructive value in gardening. That work is of a kind that may be understood not only by the owners of large places, but by those who are holders of the tiniest plot of ground. Sir William has laboured with conspicuous success to the perfecting of their scientific organisation. The species and marked varieties that the gardens now contain are nearly all catalogued in a series of hand-lists, which are generally accepted as authoritative standards of botanical nomenclature.

Sir William Thiselton-Dyer was born in 1843, became, forty-three years later, director of the Royal Gardens, Kew, in succession to his father-in-law, Sir Joseph Hooker. In his earlier years Sir William took honours in mathematical and natural science at the universities of Oxford and London, and held the Professorship of Natural History and of Botany successively at the Royal Agricultural College at Cirencester and the Royal College of Science for Ireland, entering on his work at the Royal Gardens as assistant director in 1875. As Professor of Botany and of Natural History, as lecturer to classes of teachers in training, as president of more than one section, on different occasions, of the British Association, as vice-president of the Royal Society, as member of the senate of the London University, and in other allied offices he has already done a life's work of steady labour in botany.

In botanical literature Sir William published in 1865, with the late Dr. Trimen, "A Flora of Middlesex," for which the collection of material was begun in schooldays, and in 1875 edited the English edition of "Sach's Text-book of Botany," and is now engaged in editing the "Icones Plantarum," the continuation of the "Flora Capensis," and the "Flora of Tropical Africa."

We wish the late director many happy and useful years in his retirement, and feel sure this wish will be echoed by all with whom he has been brought into contact during a long and busy life at Kew. A farewell address was recently presented to Sir William by the members of the staff when the new director, Dr. Prain, was formally introduced to the curator, assistant curator, and other workers in the Royal Gardens.

Next week we hope to refer to the new director, Dr. Prain.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### POTATOES NOT DECAYING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I do not think I claimed for my remedy—that of sprouting the tubers well in shallow boxes before planting and picking out those which fail to sprout or sprout weakly—as being infallible, but I gave it as being, according to my experience, one of the best means of protecting one's self, to some extent, against loss through the "leaf-curl" disease. I thank "W. B.," page 383, for his contribution; according to his experience a tuber may be affected with the disease and yet make a strong sprout before it is planted, though it fails to grow satisfactorily after being put into the ground. So far I have never observed this, and therefore the plot thickens, and the leaf-curl puzzle gets more difficult to deal with. I have another point upon which perhaps "W. B." will give me the benefit of his experience. So far I have never had any trouble with seed tubers obtained direct from Scotland, and Scotch-grown seed has not failed to decay and send up satisfactory growth. This may be due to the fact that seed Potatoes grown in Scotland are lifted before they are fully ripe, and I am growing more inclined to the opinion that for seed purposes it is much better

to lift Potatoes when partially ripe than it is to leave them in the ground until they are fully matured. Again, it is difficult to explain why some varieties should be more prone to the trouble than others; but it is so, and the worst I have had this season are Sharpe's Victor, Harbinger, Evergood, and Northern Star. In regard to slicing a bit off the tubers before planting, I may say that I have experimented in this direction, and possibly if the disease has not got well hold of the tuber at the time of planting it may be good as a preventive, but otherwise cutting is useless. The very fact that cut Potatoes will remain in the soil all the season and never decay at all shows that there is something wrong with them. There is no derying one fact, i.e., that the trouble is getting very serious, and through it Potato crops in gardens have been reduced very considerably in weight during the past few seasons. We want to get to the bottom of it, and obtain if possible a remedy; and this being so, I am quite sure the Editor will welcome



THE CHIMNEY BELLFLOWER (CAMPANULA PYRAMIDALIS) SELF-SOWN IN WALL.

letters from any readers who are able to throw further light on this very perplexing and troublesome matter.

G. H.

### THE CHIMNEY BELLFLOWER ON A DRY WALL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This is perhaps the best known of all the larger Bellflowers, and is generally recognised by the title of the Chimney Campanula. It is largely employed for the herbaceous border, where it is a very attractive sight in the late summer and early autumn, and is also extensively used for conservatory decoration when grown in large pots. In some cases specimens growing in deep and rich soil will attain a height of upwards of 7 feet, but a dwarfier form has of late years been introduced which is preferred for culture under glass. This handsome Campanula, which is a perfectly hardy subject, varies considerably in habit of growth, some plants throwing up one solitary towering flower-spike, and others

producing a thicket of fifty or more, often measuring 3 feet in diameter. It is, however, when this Bellflower grows self-sown in a dry wall that it is most effective in appearance. In the accompanying illustration a fine plant is shown growing in this manner. The wall is about 3 feet in height, and borders a level path that traverses a very steep slope facing due south and becoming dust dry in hot summers. Into the chinks of this wall the seed of the Chimney Campanula has been blown, with the result that there are now a dozen or more fine specimens that are in profuse flower toward the end of August. With age the leaf-tufts have become nearly 2 feet across, and the great heads measure fully 4 feet through. The position appears to suit the Campanulas to perfection, for in dry summers, when the leaves of their sisters in the border are drooping and wilted, the foliage of these well-grown plants is shapely and firm, the roots evidently finding a cool run some distance below the heaped up soil at the back of the wall. By cutting the flowers as they fade a second supply of bloom is obtained.

S. W. FITZHERBERT.

### WINTER-FLOWERING CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is gratifying to learn that a movement is on foot with the object of founding a society to increase the popularity of the winter-flowering or Tree Carnations. Our American associates have done much to bring the winter Carnations before our notice. An exhibition of this kind in midwinter would make a change between the last exhibition of the National Chrysanthemum Society and the Royal Horticultural Society's exhibition at the Temple Gardens. For many years we only had a few varieties too well known to mention by name, but now there are plenty of beautiful sorts. As recently as four years ago the culture of winter-flowering Carnations was little considered, but this is altered now. The movement that is being made to form a society should be supported by all who know the value of these beautiful flowers.

J. J. W.

### NATIONAL HARDY PLANT SOCIETY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am sure there are many people who would gladly support and join such a society, and that there is much good work for it to do. Comparatively few gardeners recognise the immense value of hardy plants, their cheapness, and how peculiarly well suited they are to our variable English climate. They seem to have been so much better understood and valued two hundred years ago, and one good work for the proposed society would be to review the lists of these plants given in old works, and to find out how many useful ones have been lost or partially eclipsed. Another point could be their arrangement at shows. I have only once seen them arranged really effectively, and that was in an amateur exhibit at a Norwich show some years ago. A society, such as your correspondent proposes, could do much to educate public taste with regard to these valuable flowers, and could be a great assistance to the many eminent florists who are helping so much to bring them back to favour, while, at the same time, it might discountenance the high-sounding advertisements of worthless plants, which bring so much disappointment to inexperienced garden lovers. I hope that some influential gardeners will take the matter up and start the society.

The Rectory, Dorchester.

E. M. HILL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was much interested in the letter by "Heather Bell," suggesting the formation of a hardy plant society. Without a doubt such a society would supply a long-felt want, and, if properly conducted, would receive the support of all hardy plant lovers. That there would be

abundance of work for such a society is obvious. If it took up seriously the subject of nomenclature of hardy plants it would have sufficient to do for years to come. To take only one or two genera of hardy plants, viz., *Sempervivum*, *Sedum*, *Saxifraga*, and *Gentian*—anyone who has grown a full collection of these will know how hard it is to verify or obtain the correct plant according to the name asked for. The question of exhibitions is broached—and where can one see what can be honestly called a good hardy plant exhibition? When hardy plants are shown they are generally bunched, like Cabbages, put in some sort of receptacle, and placed tier above tier. I think that the best of hardy plants are unknown to the general public; they are appreciated only by a few enthusiasts.

Cheshire.

G. M.

## COX'S ORANGE PIPPIN AND CANKER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 350 of *THE GARDEN*, Mr. Blackburn complains of Cox's Orange Pippin's liability to canker in his neighbourhood. He does not say what kind of soil it is; from my experience it thrives best on a warm soil. Top-dressing with wood ashes in the winter and mulching with manure in the summer encourages surface roots, and proves a great check to canker. Injudicious pruning is another cause of failure with Cox's Orange Pippin. The trees should be summer-pruned early in August, omitting the leading shoots until winter. The main branches should be quite 18 inches apart, each like a single oordon. I gathered six gallons of fine fruit off a young standard which I had pruned in this way. The branches looked very picturesque when in bloom, and when the fruit was colouring. However, my successor shortened all the main branches and did not summer-prune it; consequently, the tree was soon nothing but wood, and bore only one gallon of Apples in ten years. With regard to Mr. Blackburn's remarks about Bismarck I do not consider it one of the best varieties, but it is greatly improved if the leaders are cut back early in August; fruit-buds will form on the spurs, and much better crops will be obtained.

T. W. HERBERT.

*The Gardens, Nutfield Court, Redhill.*

## BIRDS AND BUDS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was very pleased to read your editorial note about "Birds and Buds." The last three winters all my Lilacs and forms of *Pyrus* have been stripped, not only of flower-buds but also wood-buds, and the trees themselves thereby injured. Apple and Pear trees also were very much damaged. Bullfinches and tomits are the culprits. Fishing nets are of no use against the latter. Pear trees, when in fruit and covered with nets, resembled an aviary, and I do not think that I had a dozen Pears that had not been pecked, also all the early Apples and many Cox's Orange were injured. Tomits do, no doubt, eat many insects, but it is not much good if they also spoil all the fruit. Lime and soot are useless—also firing off a gun—unless it be in the right direction.

R. D.

## THE FLOWER GARDEN.

### LILIES IN 1905.

**M**Y hopes of a brilliant Lily season this year, based on the comparatively dry and warm summer of 1904, have not, unfortunately, been realised. Lilies have, with me, been again more or less unsatisfactory, and this year's failure, following immediately in the wake of its predecessor, is most distressing, so much so that it almost makes

me decide to give up growing Lilies out of doors altogether in this wretched climate. Is the game worth the candle? Perhaps not; but should that constitute a sufficient reason for such a cowardly surrender?

For, were there not, even in 1904, a few redeeming successes and beauty spots among the sickly, the feeble, the flowerless, and faithless? Certainly there were; and these were all the more lovely and loved by reason of their scarcity. So, in gratitude to the gallant few that have resolutely and unflinchingly endured the vicissitudes of two bad seasons in succession in this unsuitable soil and climate, I, for one, feel bound to persevere, to hope on even against hope, to mulch, to shelter from frost and wind, to stake and to tie, and, finally, to groan once more over the melancholy result!

Proceeding to review briefly the behaviour of the various species grown here in 1905, I find I can record but a very small number which were quite satisfactory, so small that they may be counted on the fingers of a single hand. To begin with,

*L. HANSONI* again distinguished itself and was splendid. Many spikes came up, all fully developed, and carrying fine heads of bloom. It seems to be a thoroughly reliable and satisfactory species.

*L. HENRYI* was also a decided success as usual. Would that the flowers were a bit larger, and the habit of growth less rigid and uncompromising! I find the best plan with this Lily is to tie the growths to long thin Hazel rods along the under side of the stems, the rods being inserted in the ground near the bulbs so as to conform as naturally as possible with the general direction of the stems. Even then the artificial nature of the support is frequently only too evident. When growing among tall shrubs the stems, of course, need no staking, and will look after themselves.

The *MARTAGONS* did very well, *dalmaticum* and *D. Catani* especially. So did *L. testaceum* (excoelsum), and *L. szovitzianum*, though the latter was far less floriferous than in previous favourable seasons.

*L. RUBELLUM* was not up to its usual standard of excellence, though all my bulb-sent up growths, and several of these flowered. Two blooms on one stem was the record, and not a good one; I have had four on several former occasions. I do hope that this beautiful Lily is not going off; it has done so well with me, and I have always reckoned it among the "reliables." And I trust my recent improvements (?) to the bank where it grows may not ruffle the serenity of its temper in the future. For I have grubbed up the aggressive Lilac bush near the bulbs, and have generally reconstructed the bank in their vicinity, hoping to improve their surroundings, and trusting that the necessary disturbance of one or two of the bulbs may not have any permanently bad effect on them. These bulbs looked sound and healthy, and were carefully replanted at once with some additional stones and brickbats among them. Though the Lilac bush is gone there is plenty of shade above the spot, also there are no end of Walnut and Cherry roots to keep the soil porous and dry, so all may yet be well.

*The Elms, Yalding.*

S. G. REID.

(To be continued.)

## SEASONABLE THOUGHTS ON SWEET PEAS.

THE army of Sweet Pea growers will be providing themselves with the necessary ammunition in the shape of seeds immediately, and some rather interesting points may be worth recording at this time for the guidance of those in doubt. The varieties

SCARLET GEM and QUEEN ALEXANDRA are the most beautiful of the scarlet toned sorts. The former has always been magnificent here, but in England, especially, complaints have been

numerous about its liability to burn or be flaked with purplish blue marks. At the National Sweet Pea Show Mr. Eckford exhibited the latter and was granted a certificate of merit. I voted against it because I could not see any improvement over the Scarlet Gem I had at the show. On thinking over the matter afterwards I found that at various shows, as well as the National Sweet Pea Show, the other specimens of Scarlet Gem were all several tones lighter than either Mr. Eckford's novelty or my Scarlet Gem. I should say, therefore, that Queen Alexandra will turn out, when grown in England, very much like Scarlet Gem has done in Scotland, and Scottish growers may expect a very deep blood tone of red on the variety Queen Alexandra. In my opinion there are three tones, one slightly better than Coccinea's cerise shade, the scarlet or arterial blood shade, and the darker blood-red of Queen Alexandra. I had a sport last year of the latter, but put the intense colour down to richer treatment. At Dunfermline show, Mr. Brotherson told me that my Scarlet Gem, compared with the best bunch there, was quite two tones richer, although Scotch grown. The sport referred to was two tones at least better than any other Scarlet Gem I had. From what I have written growers will easily infer that I consider Queen Alexandra better. It by no means follows that all varieties are alike in this respect.

DORA BREADMORE, when I saw it in 1904 at the National Sweet Pea Show, was nearly a self, with a somewhat greenish yellow tint and very little pink—in fact, I could not see any pink. On that account, seeing that it was a sport from such a vigorous parent (Jeannie Gordon), I discarded Mrs. E. Kenyon and grew Dora Breadmore. I had no reason to grumble, as some truly magnificent flowers were produced, and in great quantity, but I was surprised at the colour. Under high cultivation the pink tone came out and the yellow tone got lower—a pale cream—whereas I expected it would be deeper. The

HON. MRS. E. KENYON and this one can, therefore, both be grown and shown in the same collection. Mrs. Kenyon gets deeper in colour with rich feeding. The variety

JOHN INGRAM I also saw in 1904, and thought very little of it at that time. I was positively pressed to try ten seeds, and reluctantly gave it a good place. What a surprise when the blooms opened—they fairly staggered me—great blooms, four on a stem, made others look like pigmies. At Ulverston the bunch of twenty spikes had seventy-eight blooms. This sort, a rich, full rose colour, showed extraordinary improvement here over the English ones.

HELEN LEWIS—Some controversy has been going on regarding this lovely sort. I mentioned it in my last article, and one fact was overlooked. There were several bunches shown under different names, and, as previously stated, Mr. Watson, who showed it in 1904, got the medal. His bunch was very fine, but the committee were not asked to say whether that was the best bunch shown—in fact, it was not; Mr. Bolton's being easily best. Several of the committee say that the

HON. C. R. SPENCER was considered synonymous with this variety. My notes indicate that I proposed that this variety should receive an award of merit, which was seconded. After discussion it was agreed to see it again. Helen Lewis is an orange-pink, whereas Hon. C. R. Spencer is an orange-scarlet. Growers therefore may look for as great an improvement over Helen Lewis as with Queen Alexandra over Scarlet Gem. Mr. Cole (the raiser) is, I understand, at one with me that it is certainly brighter than the other. Time will tell. A variety that does well in England and not in Scotland is

PRINCE OF WALES. I have never seen anything to equal the English-grown ones. Lord Rosebery is similar, but not in such a marked degree. These two have baffled me all along, so growers in the two countries can take that for what it is

worth. It seems, therefore, that the richer coloured flowers of the South when grown in Scotland intensify their colour note, especially selfs. The case of *Dora Breadmore*, a bicolor, is different. Towards the very end of the season the body colour was pale cream, but it got crested with a most beautiful brown tint, similar to that seen on a ripe Apricot when exposed to sun. There is as much difference in many of the shades as in Apples grown in Kent when shown against those of Scotch growth—the one enjoys the sunshine, the other the shade—we cannot have both, so we are quits.

Duns, N.B.

A. MALCOLM.

## STOVE & GREENHOUSE.

### SOME BEAUTIFUL PALMS.

**A** FEW species of Palms easily occupy the premier position among popular decorative plants. What would the decorator of to-day do if he could not obtain *Kentias*, *Livistonas*, and *Phoenixes* in large quantities? But are we not too conservative in our choice of plants for our tables, rooms, halls, and conservatories? There are many Palms beside those we grow that have charms of form, habit, and even colour, but they never get a chance to come out to court favour. I can remember when *Kentias* were as rare as "spotted Crispums," when *Cocos weddelliana* fetched £5 5s., where it now only realises 2s. 6d. or less; when *Cocos flexuosa* was known only in botanical gardens, and when a *Phoenix* was voted too stiff and prickly for use anywhere. Then came the elegant *Phoenix rupicola*, which we all admired, and more recently the pigmy *Phoenix Roebelinii*, which has won so many hearts that Mr. Sander has thought it worth his while to send a collector all the way to Siam to get a million or so of its seeds. Mr. Roebelin, who sent the first plants home sixteen years ago, the largest being now at Kew, says this *Phoenix* grows along the banks of the Mekong River, where the thermometer falls to 41°, and that its stem is never more than about 2 feet high and 2 inches in diameter. It ought to be at least as good material for the decorator as the best of Palms, and probably we shall find it much harder than it is supposed to be.

Then there is a lovely little Palm in the West Indies, known as *Thrinax Morrisii*, which reached Kew from Antigua about twelve years ago, and yet, beautiful as everyone declares it to be, no one has thought of sending some one after a bag of seeds of it. Sometimes we get a good thing without knowing it. For example, a few years ago Messrs. Sander and Sons introduced from Singapore a new species of *Livistona* named *Woodfordii*. If it were not for a few small spines on its petioles, and the fact that it is an Eastern Palm, we should declare it to be a *Thrinax*, so elegant, slender, and yellow-tinted are its leaves. It was, however, generally passed over as of no account, and now at Kew there is a beautiful example of it which attracts everyone, whilst the label causes some to exclaim: "That must be a mistake; we got rid of that thing long ago as a failure."

By the side of this *Livistona* there is a Palm of quite extraordinary charm—the red-stemmed *Cyrtostachys Renda* from Singapore. It has the habit and look of *Kentia fosteriana*, but the stem is of a clear

coral-red colour. Three years ago a similar example was shown at the Ghent Quinquennial, for which £40 was offered and refused. The exhibitor had the mortification of losing the plant shortly after. This *Cyrtostachys* develops offsets freely, so that we may hope to see it well represented in stove collections in a few years. Colour of another kind, but equally attractive, is the bright yellow of the leaf-stalks of a young plant of the King Coconut, recently added to the Kew collection. It may not be generally known that the Coconut Palm enjoys a dose of salt now and then. There is a grand young specimen of the type in the Palm House at Kew. In the same house, and close by the Coconut, is one of Kew's greatest treasures, the Double Coconut (*Lodoicea sechellarum*), which looks so healthy and strong that we may consider it established there. Of course, it will never be a rival to the *Kentias*, as its first leaves are as rigid as tin-plate, and the size of a room door.

A *Cycas* is not a Palm, but the two families are popularly associated, and I would like to mention here the new *Cycas Micholitzii* from Annam. It is not a "barn-door" plant like *C. revoluta*, stems of which, thanks to the enterprising Japs, can now be bought of the size and at about the price of Turnips; but it has a stately elegance all its own, the fronds being 3 feet or more long, gracefully arched; the broad undulating pinnae are furcate, and even bifurcate, a character of a most remarkable nature in a *Cycad*. In my opinion this is one of the newest of new plants, so different, indeed, from the other members of the family that it only just failed to be recognised as a new genus. Such plants are only rarely got; but they are much appreciated by the connoisseur when they do come.

W. W.

### NOTES ON THE SWEET-SCENTED CYCLAMEN.

SOME four or five years ago I had the pleasure of sending the Editor a photograph of a very fine collection of *Cyclamen* grown by my neighbour, Mr. Galt, the well-known gardener at Aldermaston Park, and added a note that I was endeavouring to raise a strain of sweet-scented flowers. He now asks me to report progress. I am glad to say that my efforts have been so far successful that I have a strain of *Cyclamen* for the most part of a bright rose colour, which comes fairly true from seed, with about 75 per cent. of sweet-scented flowers.

Now I do not wish to claim any particular virtues in my flowers which are absent in others, but I only state a fact when I say that I have something of my own raising that I was unable to buy. I have exceedingly vigorous plants, handsome leaves, flowers of great lasting properties, and last, but not least, of a delicious perfume. I hope it may encourage others when they find some missing feature in a flower to see what they can do to remedy it. My first remembrance of the *Cyclamen* is that of a small pink and white flower, very sweet; in fact, one plant would fill a room with perfume. These bulbs or corms would be dried off carefully every summer, and come up smiling year after year. Then somewhere in the seventies I had the privilege of seeing a collection grown by a Mr. Hook of Bradfield, not far from the now well-known college. These were, I fancy, grown on the old system, some of the corms being of immense size, and bearing, if I remember right, seventy or eighty small (to our present way of thinking) and sweet blooms. His leaves were quite different to any I

have seen since, banded with white like a *Rex Begonia*. About this time I made the acquaintance of Mr. Martin, the late talented hybridiser at Messrs. Sutton's nursery, and was shown what could be done in one short year from the seed being sown. By 1879 I had quite a nice collection, mostly sweet, with pretty leaves, but owing to absence from home in that wet and dismal autumn I lost practically the whole of my plants. Since that time I have grown *Cyclamen* with varying success, owing principally to changes of gardeners, and it was not until some seven years ago that the chance discovery of an old-fashioned *Cyclamen* in a cottage window, with nothing but its perfume to recommend it, brought back to my mind the possibility of once more getting a sweet-scented strain. I accordingly got a few pods of seed from this plant, and from the seedlings made crosses with various other flowers, with the results I have indicated above.

There are, it seems to me, a good many sorts of scent, if I may put it so, and I seldom find the old-fashioned perfume except in the white or pink and white. It almost appears that the deeper the colour the less perfume you get, and so far I have not had a sweet *Vulcan* for instance. I must say no more, but should be glad to hear other and more able *Cyclamen* growers give their opinions on the subject. I would just add that I do not go in for the so-called Butterfly types. I try, as far as possible, to retain the old and, as I venture to think, more regularly-shaped flower.

Aldermaston, Berks.

JOHN T. STRAKER.

## THE ROSE GARDEN.

### NOTES ON A FEW OF THE NEWER ROSES.

**I** SUPPOSE the New Year is suggestive of new Roses; at any rate, I respond with pleasure to the Editor's request for a few notes. For ardent Rose growers, like the Athenians of old, are ever on the lookout for some new thing, and it must be admitted that great is the fascination of the untried and unknown, even if hard experience sometimes brings a little disappointment. As for new Roses, "they come not single spies, but in battalions"—their name is legion and their names often more or less unpronounceable; so that, when even experts with golden opportunities can hardly keep count of all, my ambition in this short article must be limited to naming some that appear to give good promise. As a comparatively new Rose

*La Tosca* is hard to beat for bedding and massing. Viscountess Folkestone has enjoyed a well-deserved popularity, but *La Tosca* is in several respects an improvement on that beautiful variety. For effect one must depend largely on light Roses, and with its sturdy bushy growth and soft pink flowers freely produced *La Tosca* has all the virtues of a good bedding Rose. We have been so well supplied with light or creamy white Roses, though some have proved excellent for exhibition, that it is refreshing to note the advent of one or two yellow Roses of promise. Not that we have yet anything equal to *Maréchal Niel*—that grand Rose with great limitations—but we are led to anticipate that in the not distant future hybridists may secure for us a fine hardy vigorous yellow Rose of exhibition standard.

*Le Progres* is certainly an advance in this direction. The growth and foliage are good, and with its beautiful deep yellow buds it is a decided acquisition. The flowers are not over-full, but it has been exhibited in good form. Another Rose of much promise is

*Mme. Hector Leuilliot*, like *Le Progres* introduced by Pernet-Ducher, in colour golden-yellow, tinted with apricot. It is a good grower of semi-climbing habit, and clearly a fine Rose for a standard. And for a third, by the same raiser,



mention must also be made of that delightful new Rose

*M. Joseph Hill*, described as salmon-pink, shaded with yellow, certainly charming in colour, and probably a useful Rose to exhibitors, even if the blooms should require a little management.

*Mme. Clarence Juorantville*, a sport from that excellent Rose *Caroline Testout*, and of a somewhat lighter shade of pink, would seem well worth a trial. Not all the *Testout* sports have realised expectations, but this one appears to possess merit, inasmuch as the flowers show less tendency to ball, a fault frequently conspicuous in the original. Another sport, and one that can be confidently recommended, is

*Perle von Godesberg*, from the well-known *Kaiserin A. Victoria*. It is deeper in colour and, I think, an improvement on that variety, which is, of course, saying much in its favour.

*Gustav Grunerwald* has been so recently and minutely described in *THE GARDEN* that I will merely draw attention to it. Vigorous in growth, it is useful both for general garden purposes and as a fine early show Rose; colour bright carmine, shaded salmon.

*Lady Ashton* will undoubtedly prove a popular garden Rose, being a good grower, with well-shaped flowers of a taking shade of pink. As a pot Rose

*David Harum* is particularly fine, and the blooms are attractive enough outside when fresh, but they lose colour quickly, and a washed-out pink is not beautiful. Nevertheless, *David Harum* will doubtless have admirers.

*Climbing Papa Gontier* is a grand strong-growing sport of that favourite Rose *Papa Gontier*, and is a really good addition to the climbers, flowering freely and continuously. I must also note

*Comtesse du Cayla* as a fine and very charmingly coloured China which will be welcomed by all lovers of this highly decorative section. *Mme. Laurette Messimy* and *Mme. Eugene Resal* marked great advances, but they are surpassed by *Comtesse du Cayla*. In the Tea section—rather neglected, I fear, owing to the strong favour shown to Hybrid Teas—I should especially like to mention *Mme. Jean Dupuy* and *Mme. Vermorel* as distinctly valuable additions. There are many others one would fain name, but space forbids. Suffice it to say there are others, and among them some of the best.

Sutton. E. J. HOLLAND.

### ROSE FRAU KARL DRUSCHKI.

The photograph of *Frau Karl Druschki* was taken on September 30, and shows what lovely flowers can be cut from this Rose in the autumn. It is a most constant bloomer, never ceasing to flower till stopped by frost. G. A. HAMMOND.

### SOME POMPON ROSES.

ONE is glad to notice that this delightful section of our garden Roses is coming somewhat more to the front of late years. As a general rule they only find a place in our gardens as isolated plants, or at the most as edgings for the stronger growing Roses; but their rightful use, I am convinced (as one can say of most, if not of all, dwarf Roses), is to grow them by themselves in separate beds, and, if possible, with separate varieties to each bed. I came across last summer a delightful Rose garden wherein most effective use was made in the manner indicated of these Pompons. In a garden of quite recent construction the design was split up, so to speak, by smaller beds containing only some half-dozen plants, and the effect gained was heightened by the careful choice of colour.

During the last five years there have been added to our lists of these Roses about a dozen varieties, most of them good, all of them pretty; no doubt there are others, but of the following I speak from personal experience. In 1900 we had the two *Lamesches*, *Eugenie* and *Leonie*, the latter the more distinct of the two; in fact, unique in

its colouring amongst Roses. One wonders often whether the curiously distorted buds can ever open into a beautiful flower, but they do. I was inclined at one time to discard it as not worth growing, but the plants improve every year. *Schneewittchen* (1901) produces its small creamy white flowers in pyramidal trusses. It is not such a good white as the older *Anna Maria de Montraval*. *Aschenbrodel* (1902) is distinctly good, its colour of that more or less indescribable shade generally called peach, with orange-salmon centre, and well-shaped flowers produced in profusion. *Philippine Lambert* I have not grown, but it is described as silvery flesh in colour. *Mme. N. Levassieur* has been rather boomed as a dwarf crimson Rambler of perpetual flowering character, a not unfair description, but

the colour is not, to my way of thinking, pleasing. 1903 brought us *Schneekopf*, a purer white than *Schneewittchen*. Last year *Kleiner Alfred*, a delightful flower that I can strongly recommend, very free flowering, of variable shades of colour, ranging from red to orange and lemon yellow, probably the best of those mentioned. Another of this year is *Frau Cecile Walter*, colour yellow, which is wanted in this section, but I am afraid it loses its colour directly the outside petals reflex; a good grower. All these new Pompon Roses have reached us from P. Lambert, with the single exception of *Mme. N. Levassieur*, which comes from the grower of that name.

It is difficult to see how this section can be much improved. We do not want the flowers larger. All the colours are well represented, except that perhaps we might have some dark crimsons. They are easily grown, hardy, very beautiful, and are the Roses of all Roses for children's gardens. My favourites are, I think, *Perle d'Or*, *Etoile d'Or*, *Kleiner Alfred*, *Petit Constant* (this latter should be much more grown), *Mignonette*, *Aschenbrodel*, *Cecile Brunner*, *Leonie Lamesch*, *Mme. E. A. Nolte*, and *Perle des Rouges*.

One other use to which they may be put with considerable success is as pot Roses under glass. They form, if carefully pruned, delightful miniature Rose trees for conservatory and house decoration, and one must not forget their usefulness for table decoration. Every Rose garden should have some of these delightful Roses. The National Rose Society has decided to call them Pompon in preference to their old and somewhat

confusing name of *Polyantha*, to which had to be added the adjective dwarf. They can be planted with success right up to March.

HERBERT E. MOLYNEUX.

### LIFTING ROSES.

"My Roses don't do well" is a remark often made to me by many of my friends, although they have an ideal spot in which to grow them. The reason I find in a great many cases is that the trees in the first instance were badly planted, they are left in the same place year after year, and in the autumn they receive a heavy mulching of wet, sticky, cold manure round the roots, which turns the ground sour after several applications, and deadly cold as well, half the summer



SPECIMEN FLOWER OF ROSE FRAU KARL DRUSCHKI (REDUCED).

(From a photograph sent by Mr. Hammond.)

having gone before the soil gets warm again. I went the other day to see a friend's Roses recently planted; there they were, smothered with the nastiest, rankest, coldest manure I have ever seen, and inches thick into the bargain. It made me quite shudder to look at the poor things. No wonder they "don't do." I am a great advocate for lifting Roses, and putting the manure underneath them instead of on top. I am quite sure if this were more frequently done better results would follow. Every few years Roses should, in my opinion, be lifted, the beds thoroughly dug at least two spits deep, and the manure put well below the surface. As soon as the Roses are lifted the roots should be pruned,

removing with a sharp knife all those of extra length, especially those which are fibreless, or stiff ones which go straight down. It is also a splendid opportunity to cut out all suckers (and many of my friend's Roses have plenty); these should be cut clean out. It is easy to distinguish a sucker from a root, for the former gets *thicker*, and the latter *smaller*, the farther it gets from the stem.

Having performed these operations the Roses should be replanted, but before doing so a large portion of the top soil of the old bed should be taken away and replaced by good fibrous loam, i.e., top spit that has been stacked some twelve months. If the Roses are planted in this, surface root action will be the result. This is most important, as all plants should be dependent on horizontal surface roots. This is well understood by gardeners of any experience, for do they not take great pains with their fruit trees to cut the tap roots, and will often lift Vines and Peach trees if unfruitful, prune the roots, and replant

nearer the surface, so as to encourage them to throw out more fibrous surface roots, knowing quite well that the produce from the tap roots is gross wood only without fruit, and it is to the fibrous roots they must look to produce blossom and fruit. As with the fruit tree, so with the Rose, the old long fibreless roots only produce long stout canes and few very poor flowers. But many may say, What is the use of burying a quantity of manure below the roots if they are not allowed to go down to it? Just so; moisture is always more or less rising up through the earth, though, of course, a quantity in time of rain, or immediately after, sinks down through it. It rises most of all when the sun shines hot and the surface is dry, and then the Rose which likes heat and a friable air-permeated surface above, and a "cool bottom" below, rejoices in the rich moisture which the roots appropriate as it rises through the manure from below.

While thus recommending the placing of all manure beneath the horizontally planted roots,

I am a strong believer in feeding the plants with artificial manure on the surface, especially if the Roses are replanted, as I have suggested, in soil of the right material, but it must be borne in mind that artificial fertilisers must be used with care and judgment, and the Dutch hoe be kept constantly at work on the surface; this latter I consider one of the most important points in the successful cultivation of the Rose. I strongly advise basic slag as a fertiliser, but it should be put on early in the winter months, as its action is very slow. Mr. Turner of Elgware, who was most successful at many exhibitions last season, tells me he uses a quantity of this fertiliser, and Mr. G. W. Cook, a most successful exhibitor, has a high opinion of basic slag as a winter dressing. I cannot deal now with the question of artificial manures, but must reserve that for another occasion, my object being to point out that the successful cultivation of the Rose cannot be accomplished by leaving plants in beds for many years, smothering them with manure, and paying no attention to the root action of the plants.

Harrow.

LEWIS S. PAWLE.

#### ROSE MME. D'ARBLAY.

I AM sending you a photograph taken in my garden in July, last year, of the hybrid Musk Rose Mme. d'Arblay, which I have had some forty years—twenty-one in my present garden and nearly twenty in my former one, in which I was loth to leave it, so cut down the growths and transferred the root to its present position at the foot of a Holly bush over 20 feet high. The first year it remained nearly dormant, but the next it sent up Willow-like shoots more than 12 feet long, and the third it had scrambled completely over the Holly bush, and has since been a glorious sight every July.

JOHN HENSEAW.

Rothamsted Cottage, Harpenden.

### COLOURED PLATE.

#### PLATE 1290.

#### THE LOVE IN A MIST (NIGELLA).

FOR a long time the more showy members of this genus, which consist of all annuals, have been amongst the most popular flowers in gardens. Few plants have so many popular names as the Nigella. Amongst the many are "Devil in a Bush," from the appearance of the horned carpels peeping through the leafy involucre; Love in a Mist, from its pale blue flowers, being surrounded by a mist of leaves, and "Fennel Flower," which seems the most appropriate name, from its leaves resembling those of the Fennel. These three are those in common use, but there are many others, including St. Catherine's Wheel and Bishop's Wort. In all there are about ten species belonging to this genus, and all found in countries bordering on the Mediterranean, with one or two in Western Asia. Of these only two are worth a place in the border, *N. damascena* and *N. hispanica*, while the rest are more botanical curiosities than ornamental flowers. They are of easy culture, and may be grown in any good garden soil. When the seed is sown in the open border in March they come into flower in July, but if required in bloom earlier in the year the seeds may be sown in the autumn, and the seedlings will usually stand the winter well. When of sufficient size the seedlings should be well thinned out to about 6 inches apart. This will give them room to develop and make nice branching plants. Nigellas do not transplant well, and if it is necessary to move seedlings, they should be well watered after



ROSE MME. D'ARBLAY (20 FEET IN HEIGHT) AT ROTHAMSTED COTTAGE, HARPENDEN.





NIGELLA MISS JEKYLL.





moving, and shaded for a few days. The one most frequently met with in cultivation is

**N. DAMASCENA.**—This is a very common flower in gardens, and is a native of South Europe, whence it was introduced into this country in the year 1570. It is of erect branching growth, 12 inches to 18 inches high, with pretty Fennel-like foliage and a pale blue flower at the extremity of each shoot. These flowers are enclosed in a mist of finely-cut leaves, forming an involucre. The flowers are succeeded by curious horned carpels, which are somewhat ornamental, and from which it derives one of its names, "Devil in a Bush." There are many varieties of this species in cultivation. Some with white flowers, a form with purple-blue flowers, others with double flowers, as well as the subject of the coloured plate, a beautiful form with larger and deeper-coloured flowers than the type. It was raised by and named after Miss Jekyll. The type was figured in the first volume of the *Botanical Magazine*, t. 22, and is also known as *Nigella angustifolia*.

**N. HISPANICA.**—This is the most beautiful of the family. The flowers are large and handsome and of a deep blue colour, with blood-red stamens. The plant is about 18 inches high, and of compact bushy growth. It is a native of the fields of Southern Spain and North Africa, and is quite as hardy as the common Love in a Mist, coming into flower somewhat earlier. Although it has been in cultivation since the days of Parkinson (1629) it has never been so common in gardens. This may be due to the fact that it requires richer soil and a more sheltered situation. The carpels are large and ornamental, being marked with a reddish crest, which runs up the back. In this species the leafy involucre is absent, but the stem leaves are of the usual Fennel-like character. There is also a form with large white or rather cream-coloured flowers, which, mixed with the blue, is most effective. The type is figured in the *Botanical Magazine*, t. 1265.

Others of less value are:

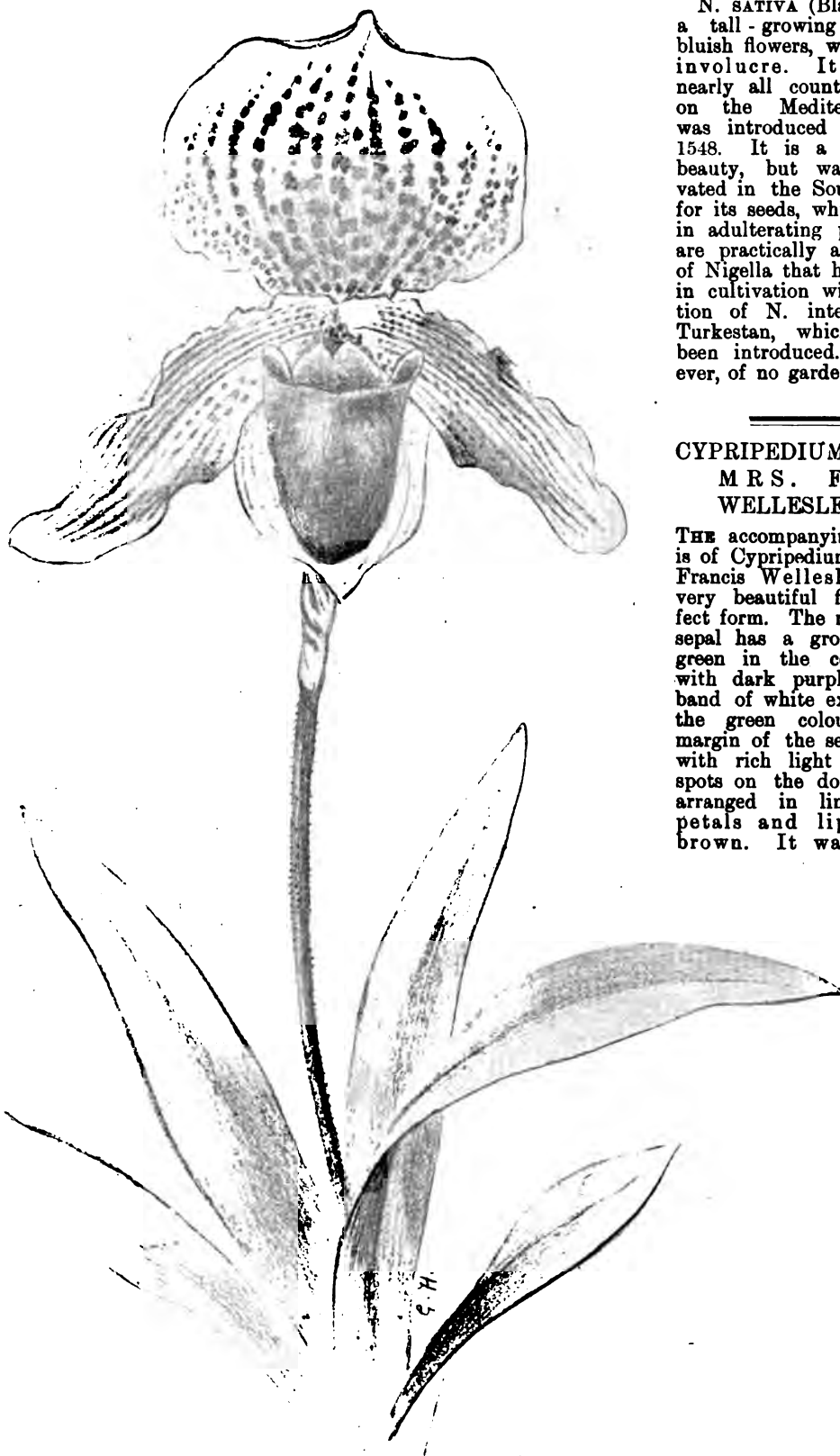
**N. ARVENSIS**, a native of Middle and South Europe, with small purple-blue flowers.

**N. ORIENTALIS** is remarkable for the colour of its flowers, which are bright yellow, but small. It is a common plant

in the fields of Asia Minor and Syria, and was introduced in the year 1699. Growing about 1 foot high, it is only worth growing as a curiosity. (*Botanical Magazine*, t. 1264.)

**N. SATIVA** (Black Cumin) is a tall-growing plant, with bluish flowers, which have no involucre. It is found in nearly all countries bordering on the Mediterranean, and was introduced in the year 1548. It is a plant of no beauty, but was once cultivated in the South of France for its seeds, which were used in adulterating pepper. These are practically all the species of *Nigella* that have ever been in cultivation with the exception of *N. integrifolia* from Turkestan, which has lately been introduced. It is, however, of no garden value.

W. IRVING.



CYPRIPEDIUM THALIA MRS. FRANCIS WELLESLEY (SLIGHTLY REDUCED).

### CYPRIPEDIUM THALIA MRS. FRANCIS WELLESLEY.

THE accompanying illustration is of *Cypripedium thalia* Mrs. Francis Wellesley. It is a very beautiful flower of perfect form. The rounded dorsal sepal has a ground colour of green in the centre, spotted with dark purple; the broad band of white extending from the green colouring to the margin of the sepal is spotted with rich light purple. The spots on the dorsal sepal are arranged in lines, and the petals and lip are reddish-brown. It was shown by

Mr. Francis Wellesley, Westfield, Woking (gardener, Mr. Hopkins), before the Orchid committee of the Royal Horticultural Society on the 19th ult., and received a first-class certificate.

Mr. Wellesley exhibited several other *Cypripediums* on this occasion, and Mr. Drewett A. Drewett, Riding Mill, gained an award of merit for

each of two new *Cypripediums*, namely, *C. Arthur Lee* and *C. insigne* Aberdeen. The former is a hybrid between *C. arthurianum* and *C. leeanum*, and the latter a handsome form of *insigne*.

## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**A** GARDEN PLAN.—It is always well to have a rough plan of the garden marked out in plots, with a stout label where each crop is to be planted, and then in the trenching and manuring operations each plot can be made suitable for its occupant. Here, for instance, say it is intended to plant Onions, and the land should be deeply worked and liberally manured at once, and left rough for the present for the weather to act upon it. Early in February a dressing of soot may be given and forked in. In the meantime the seeds of a suitable variety may be sown in heat under glass, and later will be hardened off and planted out in rows 12 inches apart, at 6-inch intervals in the rows. A light dressing of nitrate of soda may be given during growth if very large bulbs are wanted.

*Tap-rooted Plants, such as Carrots, Parsnips, Beet, &c.*, should not be planted or sown on freshly manured land. In our own case the tap-rooted things follow the Celery as a rule, and in digging or trenching the land the old manure from the Celery trenches is blended with the soil as the work progresses, and by the time the seeds are sown the manure will be assimilated in the soil, and not likely to cause the roots to grow, or fork out as it is termed. One cannot easily get the land too fine or pulverised sufficiently for root crops, and I have often seen the advantage of giving the land an extra forking over during the early season when the surface is dry, making it sufficiently firm before sowing by treading or rolling. The more the land is worked and blended the better the crops grow, only keep off it when wet.

*Pod-bearing Plants.*—The books tell us Peas do not want rich manure, because they are capable of utilising the nitrogen in the atmosphere, and no doubt this is true to some extent, and yet Peas often fail in poor soil in a hot dry time. One has only to see the effect of a mulch of stable manure on each side of a row of Peas to be convinced of the value of nutriment on the surface, where its diluted essence may find its way to the roots. Peas are often ruined in a dry time by shallow covering and thick sowing, especially the late marrow varieties. Whatever manure is used for Peas, and potash and phosphate seem most suitable for mixing with the soil, it should be blended with the soil and not permitted to come into contact with the seeds. An amateur friend destroyed all of one sowing by scattering superphosphate in the drill with the seeds.

*Late flowering Chrysanthemums for Decorations.*—Decorative Chrysanthemums that flower in December and continue to do so throughout the month are of great value. Many are under the impression that the late sorts are difficult to grow, but this is quite a mistake. If the right sorts are selected, and the plants be pinched back for the last time about the middle of July and terminal buds be retained, the flowers will be all that one could well desire. The plants should not be housed until quite late in October, if the weather will allow, and from the time they are first placed under glass until the buds open they should be kept absolutely cool, and the house freely ventilated. A little heat to dispel moisture and assist the buds to open is all that is required, and by these means beautiful flowers may be had at Christmas, at which time they are always welcome. Twelve good sorts comprise Negoya, a beautiful rich yellow Japanese reflexed of charming form; H. W. Riemann, a full, deep yellow flower—the plant is of dwarf growth;

Allman's Yellow, a free-flowering reflexed bloom of a deep rich yellow colour, dwarf. Whites should be represented by Mrs. F. Judson, a pure white incurved of exquisite form; Western King, an incurved Japanese, pure white, with greenish centre; and Mrs. Jos. Thompson, a lovely creamy white incurved Japanese of pleasing form. Crimson by Matthew Hodgson, a reddish crimson of a very bright shade and unequalled for late displays; Violet Lady Beaumont, a large deep crimson flower, and quite distinct; and Julia Lagravere, a small-flowered, deep red variety, very free, and one of the oldest. Those of a pink shade include such varieties as Mlle. Louise Charvet, a large Japanese reflexed, of even form, pale rose-pink; Framfield Pink (syn. Mme. Felix Perrin), a bright pink sort, very popular and reliable for late displays; and A. J. Balfour, a pleasing shade of rosy mauve, and a good type of decorative Japanese reflexed. Others might easily be added, but the foregoing are among the best.—C.

*Propagating Chrysanthemums.*—It is a mistake to make the propagating frame too warm when increasing Chrysanthemums. Those who have the opportunity should place a small frame on the greenhouse bench, where the temperature can be maintained at about 45°. During the daytime these figures may be increased by 5°, but under no circumstances should the temperature exceed 50°. Too much heat promotes condensation to such an extent that there is always a danger of the cuttings damping off, unless great care is exercised in affording ventilation. Those who do not possess a small frame of a suitable size may easily erect a temporary structure on the side benches of the glasshouse, laying sheets of glass on laths, which will maintain the necessary close conditions to assist rooting. In this way a batch of cuttings should be well rooted in from three weeks to a month. Do not make the cuttings too long, 2½ inches is quite long enough, and 3 inches should be regarded as the maximum length.

*The Question of Rotation.*—In a garden where much is required the question of rotation is sometimes held in abeyance. Where the land is always under crop it is difficult to carry out any hard and fast rules, still no good cultivator ignores it or forgets its value, and when occasionally special rotations are ignored for the time being some compensation is obtained by deeper cultivation, bringing up fresh soil from below and using special kinds of manure, with occasional dressings of lime. Of course the land should be rested as often as possible from green crops of the Cabbage tribe. Rotation may be influenced by a change of seed. Pod-bearing plants, such as Peas and Beans, will get a change of soil by isolating the rows with other crops between. Rotation is quite as important with the fruits as with vegetables; Strawberries and Raspberries benefit by change of position.

*Apple Bismarck.*—There is a good deal of difference of opinion about Apple Bismarck. Some growers assert that it bears only on the ends of the shoots, and therefore you do not get a full crop from it; others say it is the most prolific Apple they know. When experts differ who shall decide? The fact appears to be that this Apple is excellent in some localities and of little value in others, and the would-be planter must enquire if Bismarck does well in his particular locality. Different sorts of Apples vary a great deal in different gardens, and this fact should be considered by intending planters. The accompanying illustration shows a dwarf Apple

tree of the variety Bismarck on the Paradise stock, planted only two years ago. The photograph was sent to us by Mr. T. O. B. Norman, Holly Hill, Ditchingham.

*Orchid Growing for Beginners.*—*Soil and Treatment.*—As Orchids, which are naturally epiphytes (that is, live above the ground), obtain the greater part of their nourishment in the shape of moisture, it is evident that the compost used must be considered a good deal in the light of a mechanical support rather than as a stimulating medium. Such being the case, the principal consideration is a substance into which the roots can enter freely, and yet at the same time one containing in suspension the necessary amount of moisture. Close masses of soil must above all be avoided, as the large, fleshy roots speedily decay when they enter such a compost. Of course, some are less particular in this respect than others, but these general remarks apply more or less to all. For most epiphytal Orchids the pots should be half filled with broken crocks and charcoal, and the actual potting medium consists of good fibrous peat and sphagnum moss; two parts of the first to one of the moss is a good general mixture. Before use the moss should be thoroughly picked over, as many weeds naturally grow with it, and once they take a hold in the Orchid pots are difficult to eradicate. In potting Orchids any roots that have a tendency to decay must have the diseased parts cut away, and the actual operation is as follows: Take a clean pot, half fill with broken crocks and charcoal mixed, then over this place a layer of sphagnum (this will prevent any earthy particles washing down among the roots), then put in a little prepared mixture, and after that the plant, working the lumps of peat and moss well among the roots till all is finished. When done the soil at the edge should be just below the rim of the pot, with a very slight rise to the plant in the centre. Then dibble a few points of fresh sphagnum over the surface, as these will grow and take off the otherwise bare appearance. Two things particularly to avoid are overpotting and burying the plant too deeply in the soil, this last being absolutely fatal.



DWARF APPLE TREE BISMARCK (TWO YEARS OLD).

Cattleyas and such subjects with creeping stems should be potted at such a depth that the stem is just level with the soil. After potting the amount of water needed will depend to a certain extent upon the requirements of the particular kind and its condition, but care must be taken not to over-water, though atmospheric moisture and, if the time be spring or summer, frequent light syringings will be very helpful. Newly-potted plants, too, need more shading than established ones, but as a general rule Orchids should be shaded whenever the sun is bright. As atmospheric moisture is so beneficial, various means may be resorted to in order to keep up a certain amount of humidity. Thus, apart from the arrangement of the stage, as above detailed, all the floor surface may be damped when shutting up in the afternoon. No particular season can be assigned for potting all the different Orchids, but the months of April and May are suitable for many. Those that bloom in the summer should not be potted before the flowers are over. Rain-water is very essential for watering Orchids. Belgian leaf-mould is by many cultivators largely used for potting Orchids, often with very good results, but with this compost it is necessary to be far more careful in watering, on which account it is scarcely to be recommended for beginners, unless in the case of *Cypripediums*, which are benefited by a mixture of this leaf-mould with the ordinary compost alluded to above.

**Insect Pests.**—Many Orchids are liable to be attacked by thrips, but they can be readily destroyed by vaporising with XL All Vaporiser. Woodlice, by eating the points of the aerial roots, often do much damage, but they are readily trapped by cutting some Potatoes in halves, partially hollowing them out, and laying them on the stages hollow side downward. Into these the woodlice will collect, and if looked over every morning and destroyed they will soon be got rid of. Cockroaches, too, often do similar damage to the roots, and, in addition, they are particularly fond of eating the flowers of Cattleyas, but they can be easily got rid of by means of phosphorus paste in one of its many forms. Slugs are occasionally troublesome, and must be sought for at night by the light of a candle. If scale attacks Cattleyas, which it sometimes does, it will be necessary to dislodge it by syringing with soft soap and water.

(To be continued.)

**Gumming in Fruit Trees.**—Assuming that this is caused by fungoid growths, there must be a predisposing cause. Gumming, in my experience, is not common to trees growing in a limestone soil, and it is worst in trees growing in rich, highly-manured land. Grossness in the growth is usually the prelude to gumming. The rule-of-thumb-man, when his trees are growing too luxuriantly, applies the knife vigorously, and then gumming is soon visible. If, instead of using the knife upon the branches, the roots had been pruned, and a mixture of lime, wood ashes, and basic slag applied to them, there would be less gumming. Some years ago I had to deal with a bad case of gumming in Plums and Peaches outside. The cure was effected by lifting and replanting all the trees with roots nearer the surface, and using lime and bone-meal freely.

**Why is Root-pruning Necessary?**—The answer is: To hasten fruit bearing. To do away with the necessity for root-pruning, transplant all young trees when they have been planted three or four years, and replace their roots that they may be under the influence of solar warmth near the surface, and keep them there by annual top-dressings, and, further, keep the spade from the roots of all trees grafted on a dwarf stock. Especially is this necessary for Apples on the Paradise and Pears on the Quince. Food placed on the surface does not tempt the roots downwards in the same way that it does when placed low down in the soil. In dry, hot summers the

roots go down for moisture, and a top-dressing on the surface by checking evaporation keeps the moisture in the soil for the support of the roots and foliage.

**Should Fruit Trees be allowed to bear the First Year after Planting.**—This is not a waiting age. The cry is, "I want fruit as soon as possible. Don't talk to me about discounting the future!" And so we plant trees with flower-buds, which are permitted to blossom and bear inferior fruit just to satisfy a whim or caprice, when it would have been far better to wait at least one year before fruit or blossoms had been permitted to form. In my young days I worked under a man who was always pottering among his fruit trees. He thought highly of summer pruning, and the moment the leaves began to change colour he was for weeks working about among the roots, lifting and adding fresh loam, and some trees were moved to fresh positions. Fruits under glass had to go through the ordeal. We learned many a valuable lesson, for I never saw fruit trees of all kinds thrive better than under this interfering treatment.

**Seed Sowing now Under Glass.**—Tomato plants raised now in a temperature of 60° to 65°, and grown on under happy conditions, will fruit early. They must be kept in a light position near the glass. Melon and Cucumber seeds will soon germinate in a bottom-heat of 85°, and it is better not to sow unless these conditions can be secured. A lingering seedling never does much good. Start them right, keep them growing, and success will be certain. Onions, Cauliflowers, and Brussels Sprouts for transplanting may be started at a lower temperature in the greenhouse, say, 50° at night, and will be in time to plant out early in April. This is the right way to have a profitable crop of Onions; sow now in heat and plant out early in April, and leave room enough for growth. Plant in good clean land. H.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**N**OW is a suitable time, if the weather is open, to make alterations in flower-beds, herbaceous borders, and shrubberies. With a view to improvement notes have been made during the past season of successes and failures, and the wrongs can now be rectified. A group of herbaceous plants or shrubs may not have been happy; the aspect or soil probably has not suited them, or perhaps being in close proximity to some other group of plants the colours clash, and the effect of both is spoilt. The new places having been chosen, proceed with the work at all favourable opportunities; the winter's work makes the summer display. All new beds and borders should be made thoroughly at first. Try to make the soil suitable for the particular class of plants you wish to cultivate. For peat-loving plants make peat beds, and so on. Half measures are generally useless, and eventually end in disappointment. If peat is not available it is best not to attempt to grow peat-loving plants, but rather grow well many good things one's particular garden is adapted for.

Push on the work of regulating shrubberies, and trenching, and keep lawns clear of leaves, which if allowed to collect in corners are unsightly, and kill the grass. One ought always to find time to collect leaves. Their value when returned as leaf-mould to herbaceous borders as a mulch in summer more than compensates for the trouble and annoyance they have caused.

**PROTECTION.**—Should the weather be snowy and frosty see that all tender plants are protected with a covering of leaves, straw, Bracken,

Spruce, or silver boughs. If heavy falls of snow occur, go round all specimen evergreen trees and shrubs and gently shake the snow from them, or they are liable to be broken. Protect the roots of all freshly-planted herbaceous plants and shrubs with stable litter, as plants moved in midwinter are liable to suffer from severe frosts.

**SEEDS.**—If not already done make out the seed order and send to the seedsman without delay, as a few flower-seeds ought to be sown this month. On wet days get stakes, sticks, and labels ready, as every succeeding week from now till midsummer will become busier.

Carefully examine all wire fences and gates to see that they are proof against rabbits, which are perhaps the greatest enemies the flower gardener has to contend with. The rabbit takes one bite from a small but valuable plant and one's hopes are blighted for the year. Galvanised wire-netting ought to be 3½ feet high after allowing 6 inches in the ground, or bent at right angles on the outside of the fence and covered with 1 inch of soil is perhaps more effective. Anything larger than 1½-inch mesh is not rabbit-proof, as young rabbits get through 1½-inch mesh quite easily. Oak posts with a stout wire strained on the top and the wire-netting laced to it make a good strong fence. Carefully watch all beds and borders where bulbs are planted. If attacked by rats or mice trap at once, or the bulbs will all be destroyed. G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

IN writing the calendar for this year the object I have in view is to give my experience of the cultivation of Orchids in a way that will be most useful to the amateur, while I hope also that some of my remarks will be found useful to the more experienced cultivator. The

**TEMPERATURE DURING THE WINTER MONTHS** should be kept as low as possible so as to prevent any excess of fire-heat. If the blinds are kept on the houses during the winter it is a good plan to lower them at night and pull them up again in the morning. Lath blinds are best for this purpose, as the canvas ones often freeze to the rafters and it is a difficult matter to get them up again; and if not already done the ends and sides of the houses should be covered with mats or any other suitable material which will prevent the accumulation of condensed moisture inside the houses. The temperatures of various houses should be kept as near as possible as follows: Cool house, day 55°, night 50°; intermediate house, day 60° to 65°, night 55° to 60°; warm house, day 65° to 70°, night 65°.

**VENTILATION.**—One must use their own judgment to a certain extent as regards ventilation. For instance, no one would think of opening the ventilators during foggy weather in large towns, whereas the fog we get in the country is conducive rather than detrimental to plant growth. The top ventilators should only be used during mild weather. Great care should be taken to avoid draughts, but a little air should be admitted by the bottom ones even in severe weather.

**ATMOSPHERIC MOISTURE or DAMPING** is a matter of great importance at this time of the year, and should be attended to carefully. If the atmosphere outside is heavily charged with moisture less damping is necessary inside. Excess of moisture is often the cause of spot, and sometimes good specimen Cattleyas will collapse through it.

**INSECT PESTS.**—The worst enemy we have at this time of the year is the soft white scale, which increases very freely at the base of the pseudo-bulbs of Cattleyas. I find the way to exterminate this pest is to carry with me each time I water a small bottle containing a mixture of XL All Insecticide and a stiff hair brush, and paint the parts affected. Careful observation is necessary in this respect, as this pest often does damage to the resting bud, and the growth for the coming season is a failure.

THE INTERMEDIATE HOUSE is undoubtedly most interesting during this season. Here should be found in flower the beautiful long yellow spikes of *Oncidium varicosum* and *O. tigrinum*, *Sapphronitis grandiflora*, the numerous varieties of *Cypripediums insignis* and *leanum*, *C. fairianum*, and *C. Actæus*. If these are tastefully arranged the effect is charming. It is advisable to keep the house a little on the dry side while the *Oncidium*s last, as excessive moisture will soon spoil the flowers. As soon as they are out of flower water should be given sparingly; not until the plant is really dry should any be given, but then sufficient is necessary to wet the compost through. W. H. PAGE.

*Chardwar, Bourton-on-the-Water, Gloucester.*

## FRUIT GARDEN.

PLANTING.—Although we prefer to have all fruit trees and bushes planted in November or the early part of December, the cultivator may find himself behind, owing to adverse weather conditions or other circumstances. Should such be the case, no time should now be lost in pushing on with planting operations, provided the weather is suitable and the soil in good condition. Where the soil is of a heavy clayey nature it is advisable to incorporate a mixture of wood ashes, lime rubbish, light fibrous loam, and road grit. Soils of a light sandy nature should be assisted by the addition of some rich soil of a retentive nature. Before proceeding to plant, stakes of a suitable strength and height should be first driven into the ground. The roots of the young trees should be examined, and any bruised roots cut off with a sharp knife in a slanting direction. Be careful in digging out the hole for the reception of the roots not to make it too deep, treading the bottom firmly and evenly, so that when the operation is completed the base of the stem will be slightly higher than the surrounding level of the ground. Spread out the roots evenly and regularly, and cover with some of the finest soil to begin with, being careful to put on the soil from the stem of the plant towards the direction of the points of the roots; tread all firmly, and finish with a mulching of stable litter or farmyard manure. This mulching is more with a view to protect the roots of the newly-planted trees from frost than as a stimulant; the mulching should be removed as soon as all danger from severe frost is past. The stakes in the case of standard trees should be just long enough to allow of the upper tie being made close under the lower branches of the tree; and to avoid friction the stems should have a roll of old sacking or some such soft material passed twice round them at the point where the ties are made. The ties on young trees should be renewed annually. Young bushes of Gooseberries and Currants should also be supported with suitable stakes until they have thoroughly established themselves in the ground. In the case of

WALL TREES, when planting, keep the stem a few inches away from the wall at the bottom, letting the shoots incline slightly towards the wall. The pruning of newly-planted trees should be deferred till March. This I hope to treat of more fully at a later date. Amongst established trees the principal work at this season will be the

PRUNING, NAILING OR TYING, and CLEANING, and in many gardens much pruning is still to be done. We prefer to commence with any standard trees or bushes in the kitchen garden that may be bordering the vegetable quarters, and having all prunings cleared away before starting digging operations. In pruning standard trees, attention should be directed in the first place to removing entirely all branches that have a tendency to cross one another, as well as keeping in view the free admission of air and light by thinning out where the branches get too thick. All dead wood should be carefully removed, and where the saw has been used the surface of the cut should be smoothed over with a sharp knife. If the trees

are affected with moss or lichen, a winter wash of caustic soda solution will kill all such growths.

VINES.—Early pot Vines are now breaking into growth and require careful attention in watering until several inches of healthy growth have been made, and if the heat from the fermenting material shows signs of declining it should be augmented by the addition of some fresh litter and leaves.

LATE HANGING GRAPES should now be cut, together with 6 inches or 9 inches of stem attached, transferred to the Grape-room, and stuck into bottles of clear water, to which have been added a few small pieces of charcoal. Either end of the shoot may be inserted in the water. The temperature should be kept at about 45°. The room should be well ventilated, but not too airy. Look over the bunches every week to remove any decaying berries.

THOMAS WILSON.

*Glamis Castle Gardens, Glamis, N.B.*

## KITCHEN GARDEN.

THE notes in this calendar are intended to call attention to general work that should be done as the seasons come round rather than as a guide to the production of vegetables for exhibition. Unless already taken in hand the preparation of ground for the various crops for the coming year should be the first consideration, and advantage should be taken of fine and frosty weather to wheel or cart manure into the kitchen garden. If possible, trench all the different plots as they become vacant. A plan showing the situations which the different crops are intended to occupy during the year will be found very useful, and, if adhered to, will prevent confusion later on.

THE MANURE HEAP is a very important item in the kitchen garden. In gardens where the supply of manure is limited all soil from the potting shed bench and other garden refuse should be gathered together in a convenient corner during the year, and turned regularly to ensure thorough decay. Pea and Bean haulm, stumps of the Brassica tribe, old Strawberry runners, and such like should be burned, as they do not decay readily, and the ashes returned to the land. Where farmyard manure is obtainable and in a long and fresh state it should be carted to a convenient place near the garden and thrown into a heap, where it can be turned every six or eight weeks, if possible, so that the decay may be thorough.

Unless the land to be treated is of a light or sandy nature very much cow manure should not be used; on such land horse manure, with a plentiful mixture of straw well decayed, is more beneficial. If horse manure is not obtainable, leaves, as they are swept up in the different parts of the garden, should be added to the heap and turned with the other manure. Decayed leaves when obtainable in quantity make a good manure as a change on most land. Ashes from the stove-hole, with the clinkers removed, make a good dressing on stiff and retentive soils, making them more friable. Lime can also be used with great advantage, especially on peaty land, and also as a change on land that has had frequent heavy dressings of farmyard (cow) manure. But perhaps it is best used as a top-dressing, and forked in so as to mix well with the soil. Always clear away all Cabbage, Savoy, and Broccoli stumps as the heads are out; and, as occasion demands, all yellow and decaying leaves from the Brussels Sprouts, all of which are objectionable. In digging Celery the outside leaves that are usually broken off should be removed regularly, and not buried in the ground. Where the surface of the paths is not of loose gravel it is a good plan to roll them once a week.

MATERIALS FOR MAKING HOT-BEDS and the renewal of linings to pits should not be neglected. For the latter the litter straight from the stable yard is suitable, but for hot-beds much more care

is necessary. Fresh leaves and litter—rather more litter than leaves—should be turned together into a heap, taking care that the litter is well shaken out and not thrown up in big forkfuls. After having been thrown into a heap it should be allowed to remain for several days to heat, then turned again at similar intervals until the rank heat is exhausted. Keep the heap cone-shaped, so as to throw off heavy rains.

FORCED VEGETABLES.—Pits containing vegetables, such as autumn-sown Cauliflowers that are pricked out, Lettuce, Parsley, &c., should be freely ventilated on all favourable occasions. Forced Asparagus and French Beans will require more warmth, but at no time should the top-heat be very high, for a high temperature is conducive to weak growth, 55° to 60° at night, with a rise of 5° to 10° during the day being sufficient at this time of the year. Nurserymen's catalogues being now to hand the vegetable seed order should be made out as soon as possible, choosing varieties suitable to the locality. J. JACQUES.

*Bryanston Gardens, Blandford.*

## THE FRUIT GARDEN.

### PEAR CHARLES ERNEST.

A LARGE and handsome fruit of a yellowish colour, crimson on the sunny side, and marked with russet dots, is the above. It is of excellent flavour, and may be regarded as a valuable late variety.

Either as a pyramid, espalier, or cordon on the Quince stock it bears well. Messrs. James Veitch and Sons, Limited, Chelsea, raised this Pear, which received an award of merit from the Royal Horticultural Society in December, 1900.

### THE SMALL ORCHARD.

IN advocating the planting of the above, I do not mean to say that the adoption of this plan on a large scale throughout the kingdom would, for instance, settle the unemployed question; but I do believe that in time it would become a powerful factor in that direction. It is practically admitted by those best able to judge that the chief cause of unemployment in towns, which is assuming so serious an aspect at the present moment, is due to the too free migration of the young men and young women from the country to the towns, tempted by the apparent higher wages and the excitement of town life. Now, of all the accessories of a pleasant country cottage, we know of nothing comparable to the possession of a well-planted fruitful orchard. It is full of interest and never tires. Even in winter, when Nature is apparently at rest, the trees invite inspection and attention in the way of some slight pruning, and by the promise, indicated by the buds, of good or bad crops of fruit for the coming year, and in many other ways. In the spring there is no picture in park or garden landscape more beautiful to witness than an orchard in bloom. In summer where can a pleasanter, more sheltered, or happier resort out of doors be found for children to play in, and for the aged and infirm in the decline of life, where can a healthier or better spot be selected to rest in, in the heat of summer, than in the corner of an orchard under the shade of a well-fruited Apple tree? In the autumn there is a generous reward in the shape of luscious and health-giving fruit. There is no other form of husbandry which offers so generous a return for the small outlay of labour and money expended. After the initial outlay of buying the trees, planting, and protecting, the labour required to maintain them in healthy growth afterwards is small indeed compared with the results to be obtained. I should like to see a small orchard of this description attached to every country

workman's cottage (or situated as near to it as circumstances would allow), say, a quarter of an acre in extent. This would hold from fifty to sixty standard trees of Apples, Pears, and Plums, but mostly Apples should be planted. A workman possessing such an adjunct to his home would hesitate long before giving up his home for the hollow pleasures of a life in the crowded and unhealthy tenements of a town. Such orchards multiplied at this rate would, in a few years' time, go far to make good the deficiency in the fruit supply of this country, which has now to be made good by importation, and for which we pay annually the immense sum of one and a-half millions sterling. Slowly, and almost imperceptibly, orchard planting at an increased rate has been going on in this country during recent years. Within the past four years the agricultural returns show an increased area placed under fruit culture in Great Britain of about 10,000 acres.

This is chiefly the result of planting for market in large breadths by farmers and market gardeners, and should before many years are over make a material difference in favour of our national supply of fruit. But my appeal is based solely on the value and advantage a small orchard such as that suggested would have, not only in bettering financially the condition of the worker, but in adding much interest and happiness to his otherwise more or less monotonous and lonely life, and in helping to take away from him that fatal longing for town life, which afterwards, in the majority of cases, proves so disastrous to himself and his family. How such an orchard may be formed and planted will appear in a future early issue.

OWEN THOMAS.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**CURE AND PREVENTION OF CHRYSANTHEMUM LEAF-RUST (R. H.).**—Yes, there is an excellent cure and preventive of Chrysanthemum leaf-rust, which may be brought about in the following manner: The first thing one has to do when a plant is affected is to isolate it, pick off the affected leaves and burn them—not throw them on the rubbish heap as so many growers are prone to do. Mr. Massee of Kew, in a lecture he gave before the members of the National Chrysanthemum Society, suggested, when the disease is first seen, the removal of all suspicious plants, and spraying the remainder with a solution of sulphide of potassium. Mix half an ounce of the latter in a gallon of clear water and thoroughly stir. He also advised the careful destruction of old leaves and stems, and the best way of doing this was to burn them. Spray both the under sides of the leaves as well as their upper surface, also treating the old stems to a liberal application of the remedy. Houses in which there are no plants in green leaf might be sprayed with a

solution of sulphate of iron, and plants in a dormant condition might be treated thus without causing injury. The resting spores must be destroyed if the fungus is to be stamped out. This must be done during the winter.

**LILIUM AURATUM BULBS DESTROYED (F. P.).** We know of no insect liable to attack Lily bulbs as you describe, but we are of opinion that the small round hole pierced through the centre of the bulb is the work of the swift moth's larva. As the bulbs had a wretched appearance last year, the mischief was probably done last winter, and the larva has before now developed into the perfect insect, and is not likely to trouble you further. Other larvae bore holes through underground roots in a similar manner, but without specimens for examination it is difficult to determine exactly what the depredator is. It is characteristic of the borings of the swift moth's larva to be small, generally straight, and quite



PEAR CHARLES ERNEST.

in the middle of the root or rootstock. It generally inhabits Paeony roots, but may be found in any bulb or tuber.

**WEEDY LAWN (A. M. P.).**—The sample piece of turf you sent shows your lawn to be literally eaten up with weeds, hardly a blade of grass being in evidence. We find first the little creeping weed you refer to, which we take to be a perennial Chickweed, probably *Alaine pubescens*. That is the dominant weed; but there is also present the common crowfoot or *Ranunculus*, also the Yarrow, or Milfoil, and Clover. Even if you got rid of the creeping weed, you could not so readily destroy the others, as they are strong rooters and grow rapidly. Scratching the weedy spots with a sharp-toothed iron rake daily would get rid of, or thin out, many of the creeping weeds; but really the sample sent is so bad that we see no prospect whatever of your being able to clean the lawn without literally forking it up, burying the

weedy surface well down, then either putting down new clean grass turves or sowing clean lawn grass seed.

**MOSSY LAWN (Longhurst).**—When moss makes its appearance it is usually a sign that the soil is poor, although it may indicate the need for drainage. You will be able to determine which of these two is likely to be responsible for the moss in your lawn. Draining, however, usually means a lot of work and spoiling the appearance of the lawn for a considerable time, so we should advise you to try and improve the grass. Raking the lawn well stimulates growth, and also gets rid of a good deal of the moss. When you have done this the lawn should be top-dressed with some good soil which has been previously prepared. It should be in the proportion of one of lime to four of good rich loamy soil. We should advise you to add as directed by the manufacturers some good lawn manure. If some two or three weeks after the top-dressing is applied you sow some of the best grass seed thickly, this will grow and keep down the moss. Sow the seed towards the end of March.

**A. W. Hitchin.**—You had better reduce the number of water snails in the Water Lily tank, as when too numerous they are a great nuisance by depositing their eggs all over the underneath surface of the Water Lily leaves.—W. J. TOWNSEND.

**Kent.**—The box of seedling blooms was so damaged that it was difficult for us to accurately determine their respective merits. They are all single-flowered sorts, and as such should prove useful decorative plants, either as plants for the conservatory or for cutting. No. 1, pale buff-yellow, promises well, though the petals are somewhat lacking in substance. No. 2 we think very well of. The flowers are of good form and freely produced, the rosy mauve colour is charming, especially under artificial light. By all means grow this one again. No. 3, the canary yellow flower, is a true type of a single having a single row of petals. The two blooms were much damaged. When sending flowers next time, please pack them in a wooden box.

### ROSE GARDEN.

**ROSES FOR SCREEN (W. C. B.).**—You will be able to form an excellent screen in two years if you plant good strong specimens of the Roses you name. The prepared border and the aspect are good, but as the screen will receive the full force of east and west winds you need hardy Roses. The *wichuraianas* are excellent for this work, especially a variety named Sweetheart. The foliage of this sort is very pretty and persistent. Other good sorts are Jersey Beauty, Alberio Barbier, Dorothy Perkins, Evergreen Gem, Alba rubifolia, Rene Andre, and Gardenia. It is a very good idea also to mix with them some of the *Penzance* Briars, especially such as Anne of Geierstein. You should add *Félicité Perpétue*, *Aglaia*, *Polyantha grandiflora*, and *Reine Olga de Wurtemberg*. Their foliage is well retained, and the plants are of rapid growth. Plant 3 feet apart, or if you want quick effect then 2 feet 6 inches. When the plants become too dense you can always reduce the number of growths.

**STANDARD MARECHAL NIEL UNDER GLASS (M. F. W.).**—When this Rose is planted out the best treatment is to cut back the growths to within 1 inch or 2 inches of the stock at the time of planting. You should therefore do this at once. When the Rose commences to grow select two shoots only, and rub off all the others. These two should be trained right and left immediately under the bottom wires, and they should be encouraged to grow freely. By the end of the season the two long growths will have extended to the end of the house, and possibly there will be some growth to train up the roof. The next spring blossoms will appear along the two growths, and as soon as they have fallen out back all shoots to the main branches, and when new shoots break out select those to be retained about 14 inches apart, rubbing off all others. These shoots will probably reach to the top of the house, and the next season, if their unripened ends are removed, you will have several blossoms upon each. The plant of Field



Marshal upon the wall should have its growths well spread out, but do not prune it back very much. The more you spread this Rose out on the wall the better it will be for its future development.

**ROSES FOR PERGOLA (*Rosaphile*).**—The soil of your garden appears to be excellent for Roses, but we would suggest that the subsoil be broken up. If you could mix with the subsoil some half-inch bones, and also some good farmyard manure, the success of your pergola would be more certain. We append a list as requested of fast growing sorts. Against such varieties that would be suitable to plant on north side we have placed an asterisk. Fast growers, flowering in June, \**Caroline Pillar*, \**Aglaia*, \**Euphrosyne*, \**Polyantha grandiflora*, \**Robusta*, \**Blairii* No. 2, \**Reine Olga de Wurtemberg*, and \**Jersey Beauty*; flowering in July, \**Félicité Perpétue*, \**Flora*, \**Mme. d'Arblay*, \**Crimson Rambler*, \**Rubin*, \**Dorothy Perkins*, and \**Pink Pearl*; summer and autumn flowering, \**Rêve d'Or*, \**Mme. Alfred Carrière*, \**Noella Nabonnand*, \**Climbing Caroline Testout*, and \**Climbing Captain Christy*; moderate growing sorts for pillars, flowering in June, \**Electra*, \**The Wallflower*, \**Conrad F. Meyer*, and \**Alberio Barbier*; flowering in July, \**Bennett's Seedling*, \**Blush Rambler*, \**Tea Rambler*, and \**Helene*; summer and autumn flowering, \**Longworth Rambler*, \**Aimé Vibert*, \**Grüss an Teplitz*, \**François Crousse*, \**Mme. Jules Siegfried*, \**Walsham Climber* No. 1, \**Mme. Jules Gravereaux*, \**Pink Rover*, and \**Lady Waterlowl*.

**A. B. C.**—It is not at all an uncommon occurrence for certain varieties of Roses to make unsound unions with the stock, and this is especially noticeable when the *Manetti* is used. The frosts in May are usually accountable for the defective union. We have often found that such plants may be saved by earthing them up above the junction in order to induce the Rose to form new roots at that point. As this Rose is now so cheap we question whether it would pay you to trouble about these sickly specimens. We certainly think the seedling or cutting *Briar* is the best stock for this glorious Rose.

## TREES AND SHRUBS.

**BERRY-BEARING SHRUBS (*B. Bertram*).**—*Pernettia mucronata*, *Cotoneaster horizontalis*, *Berberis stenophylla*, *B. Darwinii*, *Symphoricarpos racemosus* (*Snowberry*), and *Skimmia japonica* are suitable plants for your purpose. We should, however, advise you to include the *Sea Buckthorn* (*Hippophaë rhamnoides*), which bears male and female flowers on different plants. With the exception of the first two and the *Skimmia*, the above will grow fairly tall in time. Your border is far too narrow for shrubs. Do not plant later than the end of April. The best time to plant is at once if the weather keeps mild and the ground is not too wet. If frost and wet make present planting impossible, defer it until March.

**CHRISTMAS TREES (*Norseman*).**—The conifer that is grown for Christmas trees throughout Surrey and Hampshire is the common Spruce (*Picea excelsa*), which is literally grown in thousands for the supply of the London market. Large numbers also come into England from the Continent, chiefly from France and Germany, and are sold very cheaply in the smaller sizes, from 2½ feet to 4 feet high. These are not very profitable to grow, but for really good trees from 6 feet and upwards a good price can be obtained. The demand for these large trees, however, is very limited, so that on the whole the growing of Christmas trees does not yield very much profit.

## THE GREENHOUSE.

**JAPANESE CHRYSANTHEMUMS FOR MARKET (*Chrysanth*).**—There are several first-class white kinds that should maintain a display from the early days of November till Christmas. The following are those we recommend: *Ivory*, dwarf, pure white, free flowering; *Elaine*, although an old sort, is still one of the best pure whites; and *Guy Hamilton*, a pure white, fine quality flowers, a splendid variety for flowering in small pots. The three foregoing sorts should be grown for November displays; for December blooming you cannot do better than procure stock of *Western King*, one of the most useful white *Chrysanthemums*, purest white with

greenish centre; *Nivenum*, a splendid late white; and *Princess Victoria*, a creamy white flower of good form, largely grown for market, flowering late in December and the early part of the New Year. Should you desire an additional sort for November displays try *Souvenir de Petite Amie*, a pure white, dwarf, and very bushy.

**BULBS AND CHRYSANTHEMUMS (*D. D.*).**—As your bulbs are well rooted you may now take them under glass. Yes, you can bring them into flower in an ordinary garden frame, providing you keep it frost-proof by well covering with mats, &c., during frosty weather. Good varieties of early-flowering *Chrysanthemums* are *Harvest Home*, *Crimson Marie Masse*, *Mme. Marie Masse*, *Myohett White*, *Ryecroft Glory*, *George Wermig*, *Goacher's Crimson*, *Queen of the Earlies*, *Kitty*, *Roi des Précoques*, *Carrie*, and *Ivy Stark*. Flower them in pots of 10 inches diameter. Put in the cuttings as soon as you can get them any time in January, or even later.

**LILY OF THE VALLEY (*Broadwater*).**—Your question regarding the *Lily of the Valley* is a difficult one to answer, as you say yours are Berlin clumps, whereas those from the neighbourhood of Berlin are single crowns or eyes tied up in bundles of twenty-five each. The clumps are sent here principally from Holland. The clumps each carry a mass of soil with the eyes embedded therein, while the Berlin crowns have no soil at all attached to them, but a good quantity of roots. The two need different treatment, hence the difficulty in answering your question. For early forcing the Berlin crowns are preferable. They start into growth more readily, but the roots being clear of soil the foliage and spikes are apt to flag when the sun gains strength. The Dutch clumps, as their roots have been undisturbed, are not affected in the same way. The soil in which the Berlin crowns are potted matters little, as they do not root before flowering. It should, however, be of a fairly holding nature. Firm potting is essential. Place fifteen crowns in a pot 5 inches in diameter. In potting these crowns about half an inch of the upper part should stand above the surface of the soil. To induce them to bloom early they need to be plunged in a bottom-heat of 70° to 80°, and to have the crowns just covered with the plunging material. A close propagating case is just the place for them then. Dutch clumps need potting in suitable sized pots at such a depth that the crowns are just covered with the soil. Whether in a greenhouse or frame these will come on gradually and flower freely. The Berlin crowns will do well out of doors, but the first season the flowers are seldom satisfactory, as the roots are not established. The second year, however, they will do better.

**H. T. Allman.**—As the *Bouvardias* go out of flower towards spring, a few weeks' rest will be beneficial by withholding water from the roots and placing the plants in a dry house or pit, which will induce most of the foliage to fall, the same as one would treat *Fuchsias* in the autumn. The wood will then become well ripened and will break more strongly when the time arrives for cutting the plants back and starting them again into growth, which should be towards the end of April.

**E. C. Grooms.**—*Azalea Deutsche Perle* is probably the most useful of all Indian *Azaleas*, as it comes into bloom very early in the season without anything approaching forcing. We had some plants that expanded their pure white blossoms in the open air in September, and since that time have had a succession of bloom from plants in quite cold houses. If slightly forced one year and allowed to complete their growth early under glass, the plants will naturally bloom the next season quite soon enough without the aid of any artificial heat. Being semi-double and the petals beautifully rounded and firm, they are ideal flowers for cutting.

**A. J. C.**—Though hardy in a few of the more favoured districts of this country, *Solanum jasminoides* does best in the greenhouse. One thing in its favour is that when grown as a roof or rather plant, the foliage not being dense, the light is in no way obstructed, a desirable feature in a climbing plant. Planted out in a bed of good rich loam and given plenty of head room, it may be had in flower for six months at a time, and by pinching it can be had in flower at Christmas, when its pure white flowers will be found valuable for cutting, being light and elegant in appearance. Under glass, especially when shaded, the flowers are pure white, but outdoors they are often tinged with bluish-mauve.

## KITCHEN GARDEN.

**SOWING VEGETABLE SEEDS (*J. E. P.*).**—The times for the sowing of seeds to produce crops at particular periods of the year depend so largely on the nature of the soil and the average temperature of the district where they are to be sown that it is possible to give only general information, and not such as can be regarded as entirely exact. Early Cauliflower of the *Snowball* type, and even *Walcheren* to succeed that, should be sown under glass to get plants to cut early in June and July. Celery in the same way should be sown under glass, the plants being dibbled out thinly in frames to grow strong before going out into trenches. Peas—to have some quite early, such as *Early Giant*—should be sown on a warm border, and late ones, like *Autocrat*, on a cool or north border. To make several small sowings of vegetables at frequent intervals is often better practice than sowing all the seed at one time.

**J. B. B.**—The chief cause of decay amongst the *Tripoli* section of Onions during the winter is looseness at the base. Of course frost is usually blamed for blanks in Onion beds, but if the individual plants can be kept upright and firm at the base they will stand almost any degree of frost. We always notice that after a windy autumn *Tripoli* Onions winter indifferently, unless care is taken to go over the beds and to raise the plants, making them firm with the feet. When once they are blown over and the topmost rootlets exposed frost soon finishes them. We have sometimes afterwards firmly mulched well up over the bulbs with leaf-mould.

## FRUIT GARDEN.

**TREES CANKERED (*B. A. J.*).**—Your trees are badly cankered, and we should advise you to take them up, burn them, and plant young, strong trees in their place. Some varieties of Pears, and also of Apples, are more disposed to canker than others, and these should not be planted where canker is likely to occur. The *Jargonelle* and *Golden and Brown Beurré* Pears are liable to canker in some districts, and we should advise you to try different varieties to those you have found to be inclined to canker. The four chief causes of canker are soft, sappy growths, frost, heat, and wounds. The three latter, however, follow naturally from the first, as if a tree makes stout, healthy wood that ripens well it is not liable to be damaged by sun or frost, while the making of healthy well-ripened wood obviates the necessity of much pruning. Canker is not so much a disease as it is a result of constitutional weakness, either hereditary or caused by over or under cropping, badly drained soil, &c. By keeping a tree in good health canker will be avoided, but the subject of the proper treatment of fruit trees is too large a one for the space at our disposal, and we should advise you to procure a small text-book on the subject which deals with the general treatment of fruit trees, as well as the special culture needed for some varieties.

**PEACH WITH SOFT WOOD (*J. E.*).**—Our experience of the pithy, green, and soft wood of Peach trees points to sluggish and weak root action as being the cause rather than to any conditions of atmosphere or summer treatment of the trees. You say your soil is poor and stiff. This would lead us to the conclusion that a tree which had been planted for some years in such a soil was exhausted, and that in consequence it must be devoid of the full complement of healthy, fibrous roots which a tree must have if it is to produce heavy crops of fruit and properly matured wood in autumn. Some growers practically replant their trees in new soil every year with splendid results. We do not know the age or the size of your trees. If they are large and old we should not go to this extent, but we should certainly find out the extremities of the roots and lift them for a considerable distance, placing them in new soil well prepared in the usual way. The secret of success lies in securing plenty of young fibrous roots. Without the tree possess these in abundance it is little use top-dressing the borders, but with them the application of such stimulants is invaluable. We also think that exposure to the weather night and day

in late summer and autumn after the fruit is gathered, by taking off the lights, very materially helps to ripen the wood growth.

**Moss Fruit.**—As your present old bushes are bearing no fruit, they are cumbering the land to no purpose. They should be grubbed up without loss of time, the ground trenched 2½ feet deep, adding a liberal supply of manure while the trenching is going on. Replant as soon as possible with young trees, and with ordinary care afterwards in pruning and keeping the land clean you will have an abundance of Currants for very many years.

### MISCELLANEOUS.

**Woodpecker.**—The sprayer you mention is excellent.

**Ferret.**—The plant is probably *Amaryllis Belladonna* (the Belladonna Lily).

**NAMES OF PLANTS.—Constant Reader.**—The specimens sent by you as *Cyperus alternifolius* are correctly named, though very weak, and the other is the plant grown in gardens as *Cyperus natalensis*, whose correct botanical name is *Mariscus umbellensis*.

**NAME OF FRUIT.**—*E. Hart, Tetbury.*—The Pear is *Bourré Baitet Père*.

### QUESTIONS.

**THE PRIDE OF MADEIRA.**—Can anyone tell "Ferret" the name of a plant known in Madeira as The Pride of Madeira?

**FIELD MICE.**—There are a great many field mice in the dry walls of my garden. I have tried poisoning them with meal mixed with strychnine, but they will not eat it. How can I exterminate them?—*R. M. BLACKBURN, Thakeham, Pulborough.*

## THE KITCHEN GARDEN.

### SELECT VEGETABLES FOR 1906.

**E**ARLY in the year those who require a good supply of the best vegetables make their selections. In January, and as early in the month as possible, choose the seeds for the ensuing season. It often happens that through delay the desired varieties cannot be obtained, the supply being limited has run out, and others are substituted. One cannot blame the seedsmen.

**PEAS.**—Doubtless these come first on the list in most gardens, as many can grow this vegetable who have not room for Potatoes. The crop may be divided into three seasons—early, mid-season, and late. For sowing on early borders for late May and June supply I advise such sorts as Chelsea Gem, one of the best earlies, which still maintains its good character, as when first sent out, in crop, quality, and dwarfness. Other good sorts are Seedling Marrowfat and the new Mayflower, a cross between the excellent Daisy and Wm. Hurst, a very early dwarf Pea; and that excellent Pea Aome, a cross between Veitch's Early and Stratagem, the latter being one of the best Peas ever introduced. To follow these, i.e., ten days later, there is a splendid selection, and the following are all good: Daisy, Buttercup, and Danby Stratagem (the latter a distinct improvement on the older Stratagem), Early Giant, Ideal, May Queen, and Bountiful (the latter where quantities are required). For mid-season grow such as Criterion (not a large pod, but a very prolific variety), Main Crop, and, where the soil is a deep loam, Perfection is an excellent variety. The well-known Duke of Albany, Peerless Marrowfat, Eureka, Best of All, and Prolific Marrow are all good. To these may be added Model Telegraph and Commonwealth. For late supplies there are excellent selections, and the best are Autocrat, Windsor Castle, Late Queen, Continuity, and Latest of All, the favourite Michaelmas Pea, and such sorts as a good stock of Ne Plus Ultra, Queen, Emperor, and Goldfinder.

**BEANS** will occupy less space, and of the three sections the dwarf sort is most useful, as seed can be sown at several dates to form a succession. For early supplies Early Gem, Early Wonder, Early Favourite, and Forcing are excellent. All the above are useful for growing in pots, and these may be followed by Progress, a grand Bean; this is a continuous cropper, and lasts from June till October. For later use

the well-known Canadian Wonder is a standard variety. In the runner section the new Hackwood Park Success, the Giant White and Mammoth Scarlet, Jubilee, and that grand Bean Prize-winner, are all good varieties. In the climbing Bean section, Earliest of All, Epicure, Tender and True, Ten Weeks, and Climbing are most valuable in gardens of small size. G. WYTHES.

(To be continued.)

## FLOWERS FOR THE GREENHOUSE.

### FIRST PRIZE PAPER.

I.—Name twenty bulbous plants that will flower in a cold (unheated) greenhouse from January 1 until the end of March. Give a short account of the culture they require.

1. *Anemone fulgens* (February to April).—This should be potted in rich soil in 5-inch pots in autumn, and kept in a shady place until growth commences. 2. *Cyclamen Cym* (January and February).—In autumn these bulbs should be procured and potted into 5-inch pots in soil containing plenty of leaf-soil and lime rubble. Cover the bulbs lightly, and keep fairly dry until growth commences. An occasional syringing will be beneficial. Good drainage is essential. 3. *Crocus* (February and March).—Secure good bulbs in autumn, and place six or seven in a 5-inch pot in fairly good soil. Plunge in ashes until full of roots; then bring into pit or house and place in a light position. Secure a succession by bringing in pots as wanted. Keep well watered when growing freely. 4. *Chionodoxa Lucilia*. 5. *C. gigantea* (January to March).—These are seen at their best under the cold house treatment. The soil should consist of loam, leaf-soil, and sand. Bulbs should be potted in autumn and treated as advised for *Crocus*, except that five or six bulbs should be put into a 3-inch pot. 6. *Erythronium Dens-canis* (February and March).—These should be potted in light soil, preferably loam and peat, inserting the bulbs in 5-inch pots, and well covering with soil in autumn. Take into house as required. 7. *Galanthus Elwesii* (January and February).—About ten bulbs should be placed in a 5-inch pot, covering with ashes or fibre; then give the same treatment as for *Crocus*. 8. *Roman Hyacinth*.—Pot in August, four in a 5-inch pot, and plunge into ashes, from which they should be removed when well rooted, and then treated as the *Crocus*. These can be had in flower in March if properly attended to. 9. *Iris reticulata*. 10. *I. Histrio*. 11. *I. caucasica* (January to March).—These will succeed if planted six in a 5-inch pot in October, and plunged to the rim in ashes. The soil should be rather good and sandy. If placed in cold frames until they are in flower they will make a nice show. 12. *Leucojum vernum* (March).—These should be potted in well-drained pots filled with loam, leaf-soil, and sand, six bulbs in a 3-inch pot. Plunge in ashes until growth commences. 13. *Narcissus Polyanthus Paper-white*. 14. *N. P. Early Roman*.—If potted early and brought into the house under favourable conditions, these will flower well in February. 15. *Narcissus bicolor Horsfieldi* (March).—Treatment as for *Crocus*, except that they should be potted in 6-inch pots, five in a pot. 16. *Romulea Bulbocodium* (February and March).—Bulbs of this pretty species should be potted eight or nine in a 5-inch pot in autumn, and placed in a pit or frame where they will bloom in March. It is not necessary to plunge these. 17. *Scilla sibirica*. 18. *S. bifolia* (February and March).—These are two indispensable bulbs for a cold house, and should be treated as for *Chionodoxa*. 19. *Trillium sessile* (February and March).—Should be put three bulbs in a 5-inch pot, and placed in a sheltered place or in a cold frame. They prefer a peaty soil. 20. *Muscari botryoides Heavenly Blue* (February and March).—Should be treated as for *Scilla* and *Crocus*, 5-inch pots, seven or eight in a pot.

II.—Mention twenty plants (not bulbous) that would flower in a cold (unheated) greenhouse during early spring (until the end of April). Give a few concise directions as to their culture.

1. *Anemone Hepatica triloba*.—This should be potted in 5-inch pots in autumn in rich soil and placed in a bed of ashes, plunged to the rim, in some shady place, until in February it can be had in flower, or if given a cold frame can be had in flower at the end of January. 2. *Dodecatheon meadia*.—Clumps of this should be taken up in November and placed in 6-inch pots in a compost of loam and leaf-soil. They should then be taken to a cold frame or house, and will be in flower in March. Keep fairly moist. 3. *Prunus Pissardi* (February and March). 4. *P. davidiana* (February). 5. *P. sinensis* (March and April). These should be potted up in autumn and placed in a bed of ashes plunged to the rim of the pot. Use a good heavy loam with some half-inch bones, and give thorough drainage. Pots according to size of plants will be necessary. After flowering the plants must be again plunged and kept well supplied with water and manure water during summer, and allowed to ripen their growth well. 6. *Laurustinus* (*Viburnum Tinus*) is useful in 6-inch pots. It should be potted in early summer and kept well supplied with water when necessary. A loamy soil is suitable. The dark green foliage is very pleasing. In flower during January, February, and March. 7. *Rhododendron precox* is also very pretty in March, and, given the protection of a cold house, will beat its best when those outside are spoilt by frost. Plants should be potted in autumn in some peaty soil and plunged in ashes to the rim. 8. *Daphne Cneorum*.—Grow in 4½-inch pots, in peaty soil, and pot after flowering, or top-dress as may be necessary. It must have the wood thoroughly ripened in autumn to flower in March. 9. *D. Mezereum* should be treated as the above, and flowers in February and March. 10. *Helleborus niger* (the Christmas Rose) if lifted and placed in larger pots will bloom in January and February. A rich soil is necessary. After flowering it may be placed back in the border and given a good mulch of manure. 11. *Primula japonica* (March and April).—This is propagated by division of the roots or by seed. Seedlings should not be allowed to flower the first year. They should be placed in 6-inch pots in autumn, and kept nearly but not quite dry until growth recommences. They may be plunged in ashes, and are better for the protection of a light to keep off the water. When in full growth copious supplies of water are necessary. The soil should be rather heavy, and the pots well drained. 12. *P. vulgaris*.—The common blue variety should be grown in 5-inch pots in any garden soil and kept moist through the winter. They will flower in February. 13. *Jasminum nudiflorum* is worth growing in pots for January and February. Use any garden soil, and 6-inch pots. Prune hard back after flowering. 14. *Aubrietia Moerheimi*.—Cuttings of this inserted in spring as soon as obtainable, and potted on when rooted into 3-inch pots, three in a pot, make a pretty mass in February, March, and April. 15. *Dicentra spectabilis* potted in autumn, and given a cold frame through the winter, will flower in March and April in any garden soil. Six-inch pots are best. Keep moist. 16. *Thussilago fragrans* (January and February) should be grown on account of its scent. Ordinary soil will do, and pot up in autumn into 6-inch pots. 17. *Saxifraga cordifolia Brilliant*.—Clumps of this should be potted into 6-inch or 7-inch pots in autumn, and well watered. They will succeed in good garden soil, and should be placed in a sunny position. They will throw up rich purple flowers in February, March, and April. 18. *Shortia galacifolia* is very pretty when grown in large, shallow pans in rough fibrous peat and loam. Plant in early spring after flowering, and grow during summer in a cool, partially shaded position. (March and April.) 19. *Iris stylosa* is propagated by division of the root, unlike the bulbous kinds. Grow in 5-inch pots. Plants should be potted

up after flowering. They commence to bloom in December, and continue until February. They must have good drainage, and be kept moderately moist while flowering. 20. *Funkia subcordata* (March and April) should be grown in rich soil and rather large pots. Place in the pots in autumn.

III.—To keep a greenhouse bright from September to March (average temperature 50° to 55° Fahrenheit), which twelve kinds of plants would you grow? Give just the important points in connexion with the culture of each.

1. *Begonias*.—*Gloire de Lorraine* and its varieties, *Julius*, *Mrs. Heal*, *Gloire de Soaux*, &c. Cuttings of these should be struck from March to May in a warm, moist pit. The cuttings should be taken from the base of the previous year's plants that have been rested and started again. They should be grown in an intermediate temperature. Soil for the cuttings should be light. The plants should be potted in a compost of peat, loam, and leaf-soil, with a good sprinkling of sharp sand. When potting in the larger pots (6-inch and 7-inch) rougher soil is better. After repotting they must be kept well syringed, but afford very little water until the roots get well hold of the fresh soil. *Begonia scottrana* and other tuberous or bulbous *Begonias* should be started in a warm house in September. They may be increased by division of the bulbils and by cuttings. They should be freely potted on until they reach their flowering pots, viz., 6-inch and 7-inch. Give them a warm house and all the light available. *B. manicata* and *B. metallica* should be grown as large specimens in 9-inch or 10-inch pots. Temperature as for *Gloire de Lorraine*; soil, peat, loam, and leaf-soil in equal parts, and plenty of sand. *B. ascotensis* and *B. fuchsoides* may be grown into good specimens outdoors, and taken in in September in flower. *B. Gloire de Lorraine* and *Julius* flower in October, November, and December; *Winter Cheer*, *John Heal*, *scottrana*, and *Gloire de Soaux* in December, January, and February.

2. *Cyclamens*.—Seed of the Persian *Cyclamen* should be sown in October in light sandy soil in pans in a temperature of about 55°. When the seedlings are up, keep them as near the glass as possible, and prick off early in the new year into small pots. As they root through, pot on in soil consisting of peat, leaf, one-half; good fibrous loam, one-half, with sand, giving ample drainage. They will flower in 4½-inch and 6-inch pots. The plants should be placed in a frame during the summer, shading from strong sun and giving plenty of air. Syringe freely when bright, and close up in the afternoon. Bulbs grown on a second year should be rested after flowering, and then grown on after reducing soil and potting as for seedlings. October to March.

3. *Cinerarias* (*Senecio*).—Seed of these should be sown in March or April on a hot-bed, and as soon as the seedlings are up remove to a cooler place. Prick off into boxes, and, later, pot on as required in leaf, loam, manure, and sand. Soot water is a very useful manure for these. *Cineraria stellata* will flower from January to April; *C. cruenta* varieties from January to March in 6-inch and 7-inch pots.

4. *Eupatoriums*.—*E. odoratum*, *E. micranthum* (syn. *E. weinmannianum*), flower October to December; *E. riparium*, January; *vernale*, February; *E. probum*, March. Cuttings should be struck in spring on a mild hot-bed in sandy soil, and may be grown on to flower in 6-inch or 7-inch pots. Plant out and lift in September, potting firmly into good soil and giving a good soaking before lifting (day previous), and also after potting. Copious supplies of water will prevent red spider attacking the foliage, which is the worst enemy. Pinch plants to induce bushy growth.

5. Zonal *Pelargoniums*.—Cuttings of these should be rooted in February and March, and grown on in rich, light soil, and potted firmly. In July, when plants are well established in their flowering pots, place outside in a sunny place, and plunge in ashes to the rim, and keep carefully watered. Shoots should be pinched to make

bushy plants, and flowers should be picked out until within six or seven weeks of the time they are wanted. Sweet-scented varieties and species of *Pelargoniums*, such as *P. quercifolium*, *P. cetriflorum*, and varieties such as *Duchess of Devonshire*, *Lady Mary Fox*, and *Shrubland Rose* should be grown into large specimen plants. They will succeed in the same soil as *P. zonale*, but will require pots 8 inches to 10 inches, and careful staking. Stand on ashes until September.

6. *Hyacinths*. Roman and Italian, and the large-flowered ones are all necessary. They should be potted in August and September for succession, Roman and Italian into 5-inch pots, four in each, and the large ones into the same size, singly, or three in a 6-inch pot. The soil to be loam, leaf, decayed manure, and sand. Plunge in ashes until well rooted, and when removed keep shaded for a week. They can be flowered well in a temperature of 55° Fahr., but Roman *Hyacinths* can bear forcing if necessary. January to March.

7. *Narcissus*. Roman and Paper-white *Polyantha*, *Princess*, *Horsfieldi*, *Empress*, *Telamonius plenus*, and many others are indispensable, and should be potted five into a 6-inch pot, and be given the same treatment as for *Hyacinths*. January-March.

8. *Primulas*. *Stellata*, *sinensis* fl.-pl., *sinensis* *Duchess* variety, *Fern leaf* variety, &c., *P. kewensis* x, and *P. floribunda*, *P. verticillata*. *P. kewensis* and *sinensis* fl.-pl. should be propagated by division of the plant. They should be grown in an intermediate temperature (55° Fahr.) in rich soil, with plenty of lime rubble. They should have a light pit or house, and have plenty of air admitted when possible. January to March. *Primula sinensis* varieties.—Seed should be sown in March in a warm pit in light rich soil, prick off as soon as possible; grow on until they are in 6-inch pots, when they should have same treatment as *Cyclamens*. *P. verticillata* and *P. floribunda* seed should be sown in April and pricked off three in each pot (3-inch) in rich, light soil, with lime rubble. Pot on into 5-inch pots, in which they are to flower. They should be carefully watered, and shaded from strong sunshine. November to January.

9. *Salvias* will flower in the following order: *Azurea grandiflora* (Pitcheri), September; *splendens*, October and November; *rutilans*, December; *Heeri*, January. *Salvias* should be grown from cuttings taken in spring (March and April) and placed in a warm frame or pit. Pot on as soon as rooted, and do not let them become pot-bound until they are in their flowering pots, which should be 8-inch to 10-inch pots. Soil two-thirds good loam and one-third manure from Mushroom beds. Give good drainage and keep pinched to make bushy plants. Feed liberally when in large pots full of roots. From July to September they should be placed on ashes, and sprayed over after sunny days to keep down red spider, which is their worst enemy.

10. *Chrysanthemums*.—These should be grown as bush or specimen plants, or to have three or four large flowers. The bush plants will include the early-flowering varieties. Cuttings should be struck from November to February in well drained pots of sandy soil. Early flowering varieties should be in 6-inch or 7-inch pots to flower. For those to bloom later and for large blooms 10-inch pots are best. Care must be taken to stop the different varieties at the proper time. For bush plants continue to take out the tips of the shoots until the end of June. Soil good, heavy loam, two-thirds leaf-soil, and manure one-third, with bone-meal and Thompson's manure, 6-inch potful to a barrowful of soil. The plants should be placed outside from the end of April to the end of September. After the final potting they should be tied to wires and properly staked up. *Chrysanthemum frutescens* (Marguerite) cuttings can be put in at almost any time, and will always come useful. Cuttings struck in February will flower from September to December. They should be kept pinched and free from the leaf miner or

maggot. *Chrysanthemums* can be had from September to Christmas.

11. *Prunuses*.—*P. cerasifera*, *P. Pissardi*, *P. sinensis*, *P. triloba*, and *P. davidiana* can be gently forced so as to come into flower from January to March. They should be grown in rather heavy loam, with which has been mixed some half-inch bones. During summer the pots should be plunged in ashes and kept moist. Care must be taken to get the wood well ripened in autumn. Any repotting necessary should be done when the foliage is off and before starting them into growth.

12. Winter-flowering *Carnations*.—Cuttings of these should be inserted in January in a warm house, where they will root rapidly in sharp sandy soil. They should be potted on as soon as struck, and gradually hardened off. Grow as strongly as possible, and keep near the glass. During summer they should be placed on ashes in a cold frame and kept well syringed and free from insects. They should flower in 6-inch or 7-inch pots. Soil, good (not too heavy) loam, leaf-soil, rotten manure, and plenty of sand. Care should be taken to keep them well staked.

IV.—Which do you consider to be the twelve best greenhouse climbers (average winter temperature of the house 50° to 55°), free and continuous flowering being the first consideration.

1, *Begonia coccinea*; 2, *Bougainvillea glabra*; 3, *Clianthus puniceus*; 4, *Fuchsia General Roberts*; 5, *Cestrum elegans*; 6, *C. aurantiacum*; 7, *Pleroma macrantha*; 8, *Streptosolen Jamesoni*; 9, *Hibbertia dentata*; 10, *Jasminum grandiflorum*; 11, *Kennedya prostrata*; 12, *Lapageria alba*.

V.—Give a selection of berried plants suitable for the greenhouse (temperature as above), with very short cultural notes.

*Solanum capsicastrum* and *S. Wetherall's* hybrid *Chili capsicum*. Seed should be sown in spring on a hot-bed, and as soon as fit pricked off. Pot into 4-inch pots, and when rooted into these harden off and then plant outside on rich ground. In September, a week before lifting, cut round within a few inches of the plant with spade. When lifted thoroughly soak, keep in close frame until root action commences, when gradually admit air, and in October remove to a dry and warm position near the glass in a cool greenhouse. *Rivina humilis* seed should be sown in spring if necessary, but usually plenty of seeds come up from under where the old plants have been standing. These should be grown on in a warm house, and allowed to bear their pretty berries in 6-inch pots. Keep clear of red spider and feed liberally when fruit is set. The Red Currant Tomato is a useful plant for decoration. Grow like the ordinary Tomato, and stake so that the berries hang gracefully. *Pernettya mucronata*, *Skimmia japonica*, *Cotoneaster microphylla*, and *Sambucus racemosa* are all hardy plants, but some grown in pots are very useful to bring into the greenhouse when flowers are scarce. Care must be taken to have both sexes of *Skimmia japonica*.

VI.—Give the best six Roses for culture in a greenhouse (temperature as above). State how they should be pruned.

*Maréchal Niel*, *Lamarque*, *Climbing Captain Christy*, *Climbing Niphetos*, *Climbing Devoniansia*, and *Fortune's Yellow*. The first three should be pruned as soon as possible after flowering (about the end of May). The shoots that have flowered should be cut back close to the old wood, and superfluous shoots removed altogether; being strong growers they will soon make fresh shoots. Of the latter the weaker should be removed, taking care to get the wood well ripened, and not to have the foliage thick enough to make a dense shade. The second three are weaker growing sorts, and will require to have some of the wood laid in. As very hard pruning is not beneficial to these a larger number of less vigorous shoots will be required; straggling shoots and badly placed ones should be removed, and, of course, too many shoots must not be allowed to remain.

L. LAVENDER.

Waltham Manor Gardens, Twyford, Berks.



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## WINTER-FLOWERING SHRUBS.

I AM afraid that an article on shrubs in flower out of doors in midwinter is apt, in some seasons, at any rate, to bear an unfortunate resemblance to the famous essay on snakes in Iceland.

The present season has not been favourable for the development of the few species that flower in the weeks preceding the New Year. The sharp spell of frost in November not only cut back the shoots of many shrubs that had scarcely finished growing, but it checked the flower-buds of such as bore them. Still an inspection of an extensive collection of shrubs shows that even in mid-December a bouquet may be cut from out of doors.

**THE HEATHS.**—In recent years, thanks in a great measure to the advocacy of *THE GARDEN*, the hardy Heaths have acquired a much wider popularity in our gardens than they enjoyed one or two decades ago. And it is among the Heaths that we find the two most ornamental shrubs flowering now. They are *Erica lusitanica* (or *codonodes*) and *E. mediterranea hybrida*. The former is an old plant in gardens, but still rare. Unfortunately, it is unable to withstand our severest winters, so that every now and again there is a clean sweep made of them except in the south-western counties. But at the present time, after a sequence of moderate winters extending over ten or eleven years, plants of *E. lusitanica* are better than they have been for many years past. The plume-like branches are now bearing their delicate pink flowers in profusion.

The other Heath mentioned, which is thought to be a hybrid between *E. carnea* and *E. mediterranea*, is (northward of the Thames especially) a more satisfactory plant. It is quite hardy, and its flowers are of a bright rose that is particularly attractive in mid-winter. Beginning to flower in December, it continues in beauty till March or even April. Whilst it keeps from 1 foot to 1½ feet high, *E. lusitanica* is 4 feet to 6 feet in height. A few flowers are open on *Erica carnea* and its white variety, but neither is really in bloom till late January or February.

**JASMINUM NUDIFLORUM** both on walls and in open borders is blossoming. Given mild weather in November and December, the winter Jasmine is one of the greatest delights of the garden then. The yellow of the flowers, not surpassed in its richness and brilliancy by even our fair-weather friends of April and May, is peculiarly effective in the darkest days of the year. I have alluded before in these columns to the admirable way in which it associates with *Berberis Aquifolium*, the beautifully-cut foliage of which has by now acquired a purplish tinge. On the walls, too, we find in bloom the ever-welcome

**WINTER SWEET** (*Chimonanthus fragrans*), not much to look at, but one of the most attractively perfumed of all shrubs; also the pretty and interesting

**CLEMATIS CALYCINA**, a native of the sunny Balearic Isles. It wants six or eight weeks yet to catkin time, but the tassels on some of the Alders—already a couple of inches long—are full of promise. Those of *Garrya elliptica* have their flowers expanded, and the slender, flexible "tails" 6 inches or so long are curious and pleasing. The

**GLASTONBURY THORN** I have never seen so full of flower as it was in the last

days of 1904. I remember particularly one warm, sunny day then when the sight of a bush in flower, and, still more, the fragrance of the blossom, made one almost imagine it was May. But my experience of the Glastonbury Thorn as a winter bloomer is that it is an uncertain starter. The same has to be said of the

**LAURUSTINUS**. Some seasons a bush will make a fair show in December, while in others it will keep its flower-buds closed till March or later. This applies, of course, to the home counties. Now that the New Year has come we may soon expect the Asiatic

**WITCH HAZELS** to flower. The American species (*Hamamelis virginica*) was still in flower in November, but it is really at its best in September and October. The three species that flower in January (or later if the weather be severe) make one of the most distinct and attractive groups of trees and shrubs introduced in the last forty years. They are called *H. arborea*, *japonica*, and *mollis*. The last is a comparatively newcomer from China. All of them resemble each other in the flowers, having thin, strip-like petals crimped in all except *mollis*, and of some shade of yellow. A variety of *japonica* known as *zuccariniana* has very pretty pale lemon-coloured flowers. These Witch Hazels show to best advantage when planted against a background of dark evergreens. The two

**HONEYSUCKLES** (*Lonicera*) *Standishii* and *fragrantissima* were checked by the November frosts, but are now showing their modest flowers. Neither are showy (*fragrantissima*, however, is more so than the other), but both are charmingly fragrant. On warm walls a few odd flowers of *Cydonia japonica* may soon be expected, and the various forms of *Daphne Mezereum* will soon attract by their sweetness. From now onwards in sheltered nooks the fine red trusses of *Rhododendron nobleanum* attract by their brightness, but the display is usually short-lived, for 4° or 5° of frost is sufficient to destroy the flowers. But however fleeting their beauties may be,



THE LATE F. W. BURBIDGE, M.A., V.M.H.

or however modest their attractions, these winter flowers give perhaps a greater pleasure than any others.

W. J. BEAN.

## OBITUARY.

F. W. BURBIDGE, M.A., V.M.H.

GARDENERS of all classes throughout the British Isles and abroad will receive the news of the death of Mr. Burbidge with deep regret. We met our friend last at the International Edinburgh show, and noticed with pain that his health was failing. The death of his devoted wife hastened the end, which came quietly on Christmas Eve. Only a short time since *THE GARDEN* lost one of its earliest helpers, the well-known artist, H. G. Moon, and now Mr. Burbidge has joined the great majority.

Mr. Burbidge was born at Wymeswold, Leicestershire, on March 21, 1847. His father, Mr. John Burbidge, was a farmer and fruit grower, and in childhood's days the son gained that love for horticulture which dominated a useful and active life. He was at one time a student of horticulture in the Chiswick garden of the Royal Horticultural Society, where he

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**HENRY ECKFORD, HEADQUARTERS FOR WEM, SHROPSHIRE.**



obtained in 1868 many prizes, also high honours in the examinations of the Society of Arts (1874). From Chiswick Mr. Burbidge entered the Royal Gardens, Kew.

He was the author of many valuable works. The first to appear was "Domestic Floriculture" (1875); "The Narcissus," a monument of industry and classification (1875); "Cultivated Plants" (1877); Horticulture in Stamford's Series on "British Industries," in the same year; "The Gardens of the Sun, or Travels in Borneo and Sulu Archipelago" (1880); and "The Chrysanthemum" (1884-85), &c. From the year 1873 to 1877 Mr. Burbidge was a member of the staff of THE GARDEN, but during 1877-78 visited Borneo, a journey fruitful in good results, many original drawings being made, dried specimens collected, and now-popular plants introduced. He introduced among others: *Nepenthes Rajah* (Mt. Kina Balu); *N. bicalcarata* (Lawas River); *Burbridgea nitida* Hook. f., new genus (Lawas River); *Cypripedium lawrencianum* (mountains near Brunei); *Pinanga Veitchii* (forests, Lawas River); *Piptospatha insignis* and *Gamogyne Burbridgei* (both from Tawaran River); *Pothos oelatosaula* (Labuan); *Dendrobium Burbridgei* and *D. cerinum* (both from Sulu Archipelago); *Bulbophyllum leysianum* and *B. petraeanum* (from the foot of Kina Balu, beside streams); *Phalaenopsis Mariesi* (Sulu Islands); and *Aerides Burbridgei*, rose flowered (from Sulu). *Calceolaria Burbridgei* (W. E. G.) was raised in the College Gardens, Dublin, in 1880 (= *C. Pavoni* × *C. fuchsifolia*).

Mr. Burbidge had been curator of the Trinity College Botanic Gardens, Dublin, since 1879. He was an Honorary Master of Arts of the Dublin University (T.C.D.) and member of the Royal Irish Academy, a Victorian Medallist of Honour, and Veitch Medallist, besides holding other honourable degrees.

It is indeed sad to receive the tidings of so irreparable a loss as this to readers of THE GARDEN. The great personal charm of Mr. Burbidge and his good nature made him hosts of friends, and, now that he is gone, there are many who, like the writer, will feel that he has left a place which cannot well be filled. Those of us who were his colleagues upon the Narcissus committee, shared his friendship, and looked forward to its renewal each recurring spring, will miss him sadly. To many most pleasant memories must remain of hours spent in his company—hours full of profit and useful instruction—among the flowers and plants which he knew and loved so well.

We who are resident in the heart of the Midlands used to look forward with pleasure to his annual visit to Birmingham at the time when the Daffodils were in full bloom. It was an event very dear to his heart, for there he was amongst friends who knew him well, and with whose aims and aspirations he was in sympathy. Horticulture and its devotees owe much to him. His advice was always sound, and, moreover, it was always freely and willingly given.

ARTHUR R. GOODWIN.

### M. O. DE MEULENAERE.

We regret to announce the death of M. O. de Meulenaere at his residence at Gendbrugge, Belgium. M. de Meulenaere was a well-known amateur horticulturist and a Chrysanthemum grower of considerable repute. He was also the author of a very valuable and interesting work, called "Liste Descriptive des Chrysanthèmes d'Hiver," which he published in 1890, and subsequently kept up-to-date by the issue of various supplements. For this work the National Chrysanthemum Society awarded M. de Meulenaere its silver-gilt medal.

M. de Meulenaere was a keen Chrysanthemum grower, president of the Court of Appeal at Ghent, a commander of the Order of Leopold, besides having several other decorations. He

was also an honorary fellow of the National Chrysanthemum Society.

### THE REV. E. BARTRUM, D.D.

We regret to hear of the death, at the age of seventy-two, of Dr. Bartrum, rector of Wakes Colne, Earls Colne, Essex, and formerly head master of Berkhamsted School. It has been said of Dr. Bartrum that he knew as much about Pears and Plums as the late Dean Hole knew about Roses. He was an ardent and expert fruit grower, and used to spend many hours among his fruit trees at Wakes Colne Rectory. Dr. Bartrum was the author of "The Book of Pears and Plums."

## LATE NOTES.

**The Royal Horticultural Society of Ireland** will hold a great fruit and Chrysanthemum show and fruit conference at Ball's Bridge, Dublin, on October 24 and 25 next. The schedule, containing particulars of the numerous classes and liberal prizes, may be had from Mr. W. Keating, jun., secretary, 5, Molesworth Street, Dublin.

**Mr. Druery's new book.**—Mr. Druery, the well-known authority on Ferns, contemplates issuing shortly in book form thirty or forty of his humorous contributions which have appeared during recent years in the Press. Those who would care to purchase this volume should apply to the author, 11, Shas Road, Acton, W.

**Mushroom cultivation in Scotland.**—As is pretty well known, the cultivation of Mushrooms in Scotland Street Tunnel, Edinburgh, has long been attended with considerable success, although within recent years much trouble has been caused by disease, which has somewhat decreased the returns. More recently, what appears likely to be a satisfactory enterprise has been started by preparing beds for Mushrooms in some disused lime-pits at Gilmerton. The principal openings have been closed, and the pits have been easily adapted for Mushroom cultivation. Recently a number of experts visited them on the invitation of the management, and were favourably impressed with the prospects of the crop. It is to be hoped that this enterprise will prove successful.

**Eckford Memorial Cup.**—I have to inform you that the firm of Henry Eckford has placed at the disposal of the National Sweet Pea Society a silver cup, value 50 guineas, in memory of the founder of the firm. It will be offered for twelve bunches of Sweet Peas, distinct (trade excluded), at the show on July 5, and the society will give a gold medal to the winner. The trophy must be won three times in succession before it becomes the property of any exhibitor.—HORACE J. WRIGHT, Hon. Secretary, National Sweet Pea Society.

**Winter flowers and the dry autumn.**—The past autumn has been unusually dry and warm, and its effects are now showing themselves prominently on the plants which normally flower in winter and spring by bringing them into bloom much earlier and more abundantly than usual. We had the first blossoms of *Iris stylosa* before the end of November, and for the past month have been cutting them every day to the number of ten or a dozen, both the mauve form and the white. In general we do not get any before late January, and

no quantity till well into March. Besides the Christmas Rose the coloured forms of *Helleborus*, such as *Commenzienrath*, *Benary*, *Dr. Moore*, and others are rapidly coming into blossom, thus showing how inappropriate the popular name *Lenten Rose* is. Other things coming abnormally early are *Arum Lilies* potted up in October and *Freesias* potted in August, while things in bloom at more nearly their customary season are *Cyclamen Coum*, *C. europæum*, *Crocus Imperati* (of which I can always count on a bunch being out on December 25), *C. Sieberi*, and *Galanthus plicatus*. Of course the weather has been very open as well as dry, and the temperature on Christmas Day was about 58° in the early afternoon, but I have little doubt the early blossoming is due largely to the sun the plants got in September and October.—G. PIM, County Dublin.

**Mildewed Roses.**—I find the varieties most affected with mildew are *Her Majesty*, *Mrs. Sharman Crawford*, *Helen Keller*, *Clio*, *Jeannie Dickson*, *Mme. Gabriel Luizet*, and *Margaret Dickson*. These are grown in rather heavy soil, and give a few good blooms in July, but are quite a failure in the autumn. Hybrid Teas: *Killarney* (very bad), *Manie*, and *Viscountess F.ikestone*. Teas: *Hon. E. Gifford* and *Mme. Curin*. Mr. A. H. Pearson asks if certain varieties are more affected in one district than another. I hope this will be taken up by your readers.—G. SPUGHT, *The Square, Market Harborough*.

**Some flower show fixtures for 1906.**—The annual exhibition of the National Dania Society will be held on Thursday and Friday, September 6 and 7, at the Crystal Palace. The Kent County Chrysanthemum Society will hold their annual show on October 31 and November 1. The shows to be held by the Chesterfield and District Horticultural Society are the spring show on May 16, and the autumn show on November 13 and 14. The Leeds Paxton Society will hold their Chrysanthemum show on Tuesday and Wednesday, November 20 and 21.



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**Croydon and District Gardeners' Society.**—The sixth annual dinner will be held at the Greyhound Hotel, Croydon, on Wednesday evening, the 24th inst., at seven o'clock. The committee trust every member will support this function, which has in past years proved such a success. Tickets, which may be obtained from the hon. secretary, Mr. H. Boshier, 62, High Street, Croydon, must be returned on or before the 20th inst. if not required.

## SOCIETIES.

**NORTH FERRIBY (YORKS) GARDENERS' SOCIETY.** THE members of the above society met on the 6th ult. in the Oddfellows' Hall. Mr. W. Burton presided; the subject was "Chrysanthemums for Exhibition," which proved too large to be discussed at one meeting, so was adjourned till the 20th ult. Numerous vases of Chrysanthemums were staged, the most noteworthy being one vase of Japanese and one of incurved, staged by Mr. C. Jennings, Aston Hall, Ferritry. On the 18th ult. Mr. F. Reid presided over a large attendance to hear a paper on "Carnations All the Year Round," by Mr. J. O. Donoghue, The Gardens, Bardon Hill, Leeds. He advised planting border varieties out in autumn as early as possible. Tree Carnations, of which the essayist had some excellent blooms on view, he advised to be struck from cuttings during November and December, in a bottom-heat of 60° to 70°. These should be ready for potting into small pots in January, and should be grown in a temperature of 60° by day and 50° by night. Later on shift into 5-inch or 6-inch pots and gradually harden off into cold frames. Give abundance of air in favourable weather, and all light possible; exclude bees, as they not only destroy the scent, but cause the blooms to fade quickly. A good discussion was raised, and Mr. Donoghue was heartily thanked for his most able paper.

**BECKENHAM HORTICULTURAL SOCIETY.** AT the Public Hall, under the auspices of the Beckenham Horticultural Society, Mr. R. B. Leech recently gave an interesting lecture on the methods of bottling fruit. The rector (The Rev. H. Arnott) presided. Mr. Leech illustrated his lecture with specimens of the various sorts of bottles, lids, bellers, and bottles of fruit, as Pines, Greengages, Tomatoes, Rhubarb, and Currants; a good many questions were asked, and Mr. Leech answered them with very concise instructions. Some of the specimen bottles were opened and the fruit tasted by the audience. The chairman then said that he had a very pleasing duty to perform; that was to ask Mr. M. Webster to accept a small token from the members who had used the library, and those who had seen the work Mr. Webster had done in getting up the lectures for several years past. The rector then handed Mr. Webster a handsome eight-day clock in a polished birch case with an inscribed plate.

**DUNDEE CHRYSANTHEMUM SOCIETY.** THE annual meeting of this society was held on the evening of the 14th ult., ex-Ballie Nairn in the chair. What were considered very satisfactory reports were submitted by Mr. W. P. Laird, the secretary, and Mr. Thynne, treasurer. The income had amounted to £163 15s. 3d., and the expenditure to £161 8s. 1½d., leaving a balance of £2 7s. 1½d. The secretary's report showed a small increase in the membership, and submitted suggestions for its further increase, and the need of strengthening the financial position. The chairman intimated that he would give £3. Office-bearers and a committee were appointed.

### PLYMOUTH AND DISTRICT GARDENERS' ASSOCIATION.

A MEETING was held on the 20th ult. at Ivybridge, when an interesting and practical paper was read by Mr. Selley, Delamore Gardens, Cornwood, the subject being "Fruit Culture," John Bayly, Esq., Highlands, Ivybridge, presiding. Mr. Selley gave many practical hints culled from his own experience of thirty years. He first dealt with Grape Vines, general culture, diseases, and insect pests. The remainder of the paper was taken up with the treatment of Peaches and Nectarines, and Apples and Pears. At the close of the paper many questions were asked, especially about Apples, of which there were many dishes of fine fruits on the table, besides those brought by Mr. Selley. Some were kindly lent by Mr. Seward, gardener to the Earl of Morley, Saltram. The table was decorated by Messrs. Challice and Son of the Plympton Nurseries. There was a good attendance of gardeners and amateurs, and after Mr. Selley had answered all the questions asked, votes of thanks to lecturer and chairman were carried enthusiastically, and brought the meeting to a close.

### KIDDERMINSTER AND DISTRICT HORTICULTURAL SOCIETY.

THE Chrysanthemum show report states: In presenting the balance-sheet of the third annual exhibition of Chrysanthemums, &c., held under the auspices of our society, your committee record with much pleasure the general consensus of opinion that our show this year surpassed all previous efforts. Your committee record with much regret that, notwithstanding the exceptional success of the show in other respects, the financial result has not proved satisfactory, a deficit of £5 4s. 3d. having been incurred. This no doubt in a great measure may be accounted for by the general depression in the trade of the town, which caused a falling off in the attendance, and subscriptions to the prize fund; fortunately a small reserve fund exists, from which the loss has been met, and

it is earnestly hoped that future shows may be held under more favourable circumstances.

### BROUGHTY FERRY.

THE annual meeting was recently held, when there was a good attendance of the members. The reports of the secretary and treasurer for the past year were submitted and approved of. They were highly satisfactory as a whole, and showed a continued interest in the work of the association. The following office-bearers were appointed, together with a committee of nine: Honorary president, Mr. J. W. Laird; president, Mr. James Slater; vice-presidents, Mr. Alexander Macrae, Mr. William Grant, and Mr. William Ross; secretary, Mr. William Christison, Brackenbrae Gardens, West Ferry; and treasurer, Mr. D. K. Meeson. The prospects of the association for the coming year are excellent.

### TRADE NOTES.

#### SUTTON'S "AMATEUR'S GUIDE IN HORTICULTURE."

WHATEVER the extent of the garden may be, the important point is to make the most of it, and here Sutton's "Amateur's Guide in Horticulture" is of especial value, because it contains just the kind of information which enables amateur and professional gardeners to grow the best of everything that can be obtained from seed. The edition for 1906 is more than usually attractive, with its six superb monochrome plates and 240 other illustrations. Those who have gardens, conservatories, and greenhouses, find Sutton's Amateur's Guide indispensable, and those who have none may spend a pleasant hour in examining its pages. The publishers are Messrs. Sutton and Sons, the well-known seed merchants of Reading.

#### TIME AND LABOUR-SAVING TOOLS.

THE Standard Manufacturing Company, Ye Olde Moot Hall, Derby, have introduced some ingenious garden tools, which cannot fail to be appreciated. Some of them are: "The Giant Tree Pruner," which is said to sever a branch 2½ inches in diameter in thirteen seconds; "The Mytilcult," for pruning dwarf trees, shrubs, and bushes. "The Erator," which is described as a rotary-pronged hoe and hand cultivator, has rendered hand cultivation easy. Pruning saws, fruit pickers, flower gatherers, weed destroyers, and many other specialties are made by the Standard Manufacturing Company.

#### SWEET PEAS FOR THE MILLION.

MESSRS. GILBERT AND SON, Anemone Nurseries, Dyke, Bourne, Lincolnshire, are sending out several beautiful new Sweet Peas this year. Among them are the new giant variety Gladys Unwin, a large bold flower, colour pale rose-pink; Lady Aberdare (the Fen Queen), a beautiful flesh-pink self; Phyllis Unwin, deep rose-carmine self; Robert Sydenham, rich dark rose, very large; Helen Lewis (Orange Countess), David R. Williamson, and many more. These, together with a very large number of other varieties, are fully described in the list published by Messrs. Gilbert and Son. The list is also beautifully illustrated with pictures of Gilbert's famous Anemones and Sweet Peas. Among the Anemones, the double King of Searlets is the finest, and a plant for every garden.

#### CHRYSANTHEMUM TONGS.

CHRYSANTHEMUM enthusiasts will find the tongs made by Mr. Watson, 26, Chesterfield Gardens, Harringay, N., to be excellent tools. They are strong, and, being nickel-plated, are of attractive appearance. They are made in different sizes. Growers will find them invaluable. Full particulars may be had from Mr. Watson.

#### ECKFORD'S SWEET PEAS.

THE catalogue issued by Mr. Eckford, Wem, Shropshire, is full of good things among Sweet Peas, and those on the look-out for novelties and good sorts should consult it. Coloured plates are given of two of the best new sorts, namely, Henry Eckford and Queen Alexandra. The former is of unique colouring, which has been variously described as orange, orange salmon, and salmon. Queen Alexandra is a scarlet self, a bold and handsome flower. Mr. Eckford showed many other beautiful new sorts during 1906, all of which are fully described in his catalogue.

#### GARDENING APPOINTMENTS.

MR. T. F. COOK, who has been general foreman at Impney Gardens for six years, has been appointed gardener to Joseph Drake, Esq., Orford House, Market Rasen, commencing his duties on January 15.

MR. J. HALMS, of the Botanical Gardens, Birmingham, has been appointed an assistant collector of botanical specimens for teaching purposes at Avery Hill, Editham, under the London County Council.

#### PUBLICATIONS RECEIVED.

Liste des Plantes vivantes offertes en échange par le Jardin botanique de l'état à Bruxelles; The Handy Book of Pruning; School Gardening; The Gloucester Diary and Directors' Calendar for 1906; The American Journal of Science; and Boletim da Real Associação Central da Agricultura Portuguesa.

#### CATALOGUES RECEIVED.

Seeds.—Dobbs and Co., Rothsay; Dicksons, Chester; Peed and Son, West Norwood, S.E.; James Veitch and Sons, Limited, Chelsea; Dickson and Robinson, Manchester; William Bull and Sons, Chelsea, S.W.; and Stein and Groot, Enkhuizen, Holland.

Sweet Peas.—W. J. Unwin, Histon, Cambs. Chrysanthemums.—Frank Hilton, Guernsey. Pottery.—The Scremerston Coal Company, Limited, Berwick-on-Tweed.

\*.\* The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

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# THE GARDEN.

No. 1782.—VOL. LXIX.

JANUARY 13, 1906.

## HARDY WINTER GARDENS.

**W**HEN Bacon wrote his memorable essay on gardens, and regretted that fine gardening was so much more rare than good architecture, it was, without doubt, to open-air gardening that his allusions were made. A well-planted garden is interesting and cheerful at all times and seasons, but winter is, after all, the true test and touchstone of the gardener's art. More especially is this true in the case of town parks and open spaces wherein a desert of bare earth but too often succeeds the flowers of summer. In spring and autumn we have greenery and the brightest of flower-colour everywhere, but just "now is the winter of our discontent," when fresh leafage or jewel-like glints of colour here and there are as precious as is the sunshine itself of these wintry days. After all, there are many plants in our gardens which will pass through our worst winters unscathed, and even were we confined to our native shrubs alone, we have Hollies and Ivies of kinds many and varied, and a judicious use of these, unaided by exotics, would at least give an air of cheerfulness to the beds and borders which are, alas! too often left desolate and tenantless from November until February. As a fact, we have hardy plants by the hundred with which to bridge over that period of desolation which begins with the fading of the Chrysanthemum and only leaves us when the "golden Crocus crowns the green."

Outdoor gardening, in a word, is like fine sculpture. We appreciate it only after having passed through the "valley of humiliation" of art. So also must the gardener struggle through the flashy triumphs of hothouses and stoke-holes, ere the noble simplicity and ever-growing beauty of open-air gardening is revealed to him. Given a deep rich soil, well drained, of course, and its potentialities are as infinite as clay in the modeller's hands. It is the canvas on which may be painted a living picture of ever-changing beautiful things. We must have evergreen shrubs for groups on the grass and drapery for tree trunks or bare walls. In smoky districts or near towns Conifers of all kinds are perfectly useless, and one must mainly employ glossy-leaved Hollies, Ivies, Aucubas,

Euonymuses, and perhaps Rhododendrons in bold groups. The large-leaved golden Ivy is especially warm and bright in tone, and should be largely employed in suitable positions on walls or pillars, where its glowing colour may remind one of "sunshine in a shady place." Beside it for contrast the Coral Thorn or Pyracantha may be planted for the sake of its winter harvest of bright red fruit, as recommended by Parkinson years ago. So also the oval-leaved Garrya may be employed, since even now its soft grey tassels dangle in the breeze, reminding one of the Willow catkins or Palms of early spring. The golden Japanese or winter Jasmine is also a most valuable shrub, and an Ivied wall bespangled with its golden stars is now a pretty sight. Then for variety we must have the Japan Allspice, the waxen buds and bells of which already glisten on its ash-grey shoots and exhale a perfume beyond description. The Strawberry Tree (*Arbutus*) also has every shoot tipped with clusters of pale waxy bells and the round red fruits glisten warmly from among the last year's leaves. A few rich brown or vivid golden Wallflowers are peeping here and there, and the smaller blue Periwinkle is in flower, and by looking closely one may perceive the points of the Snowdrop and the broader tips of Daffodil leaves peering in groups among its trailing stems. On sunny mornings you may catch the breath of Violets and the magic perfume of dying Strawberry leaves, and the scent of Rosemary and the aromatic odour of Box and of golden Thyme is abroad. During the short dark days, indeed, every floweret, every fragrant green leaf is appreciated at its true value, and at no other time of the year are the results of good gardening so acceptable as at the present season, and after all there is no reason why our parks and gardens should not be cheerful and interesting, even if not absolutely showy, during winter. We can have columns of the golden Ivy before mentioned; the crimson shoots of the Dogwood may gleam here and there near to water margins in contrast with the slender wands of the golden Osier. We can have clumps or beds of the Christmas Roses, of which there are several noble varieties, each and all of them finer in leafage and in blossoming than is the common wild type. Of Yuccas, which are really great evergreen

Lilies of noble appearance at all seasons, we have several species all good, and all of which may be well grown in London gardens if once well planted in beds of rich, good, well-drained soil.

## RIVIERA NOTES.

THE fine weather of the month of December has enabled the late shoots of the DAISY TREE (*Montanoa bipinnatifida*) to complete their growth and repair the ravages of last year's frost. There is no stately winter-flowering plant of higher excellence than this when grown in a fairly sheltered garden, and the finest specimens, which are to be seen at Bordighera, surpass considerably the beauty of the Tree Dahlia (*D. imperialis*). The fact also of its blooming in December—January makes it the more valuable. So big and quickly growing a plant needs shelter from wind, of course; but any garden where the Heliotrope keeps in good condition during the winter will suit this very handsome shrub. If cut down to the ground by an extra severe frost it usually sends up strong growths again in spring. Long ago this plant was used as a foliage plant in "sub-tropical gardening" but all who have seen it in full flower will agree that its highest excellence is reached when in bloom. This season the

NEW HYBRID ACACIA, between *A. dealbata* and *A. baileyana*, is flowering. Its foliage is even prettier and more glaucous than *A. dealbata*, resembling in that point *A. baileyana*, as does its growth, which is rather more slender than *A. dealbata*; but the sprays of flower are very similar to the popular *A. dealbata*, and of a pretty and pale primrose shade. Its season of flower is at least a fortnight earlier than *A. dealbata*, so it should be a very desirable plant for all Riviera gardens. Curiously enough, it appears to grow freely in all soils, while both its parents refuse to exist where there is much lime in the soil—on the whole a decided acquisition for our winter gardens. This season for the first time I have seen

SWEET PEAS in good flower in December—the happy result of letting the plants sow themselves, and so starting as soon as the rains arrive—a delightfully simple plan when it succeeds, but which must necessarily depend on the weather. Still it is a thing to chronicle, as the young plants transplant so readily if they do come up in this kind manner. It is only the two early varieties, Mont Blanc and Earliest of All, that are so precocious and valuable. The winter-flowering form of the

GERMAN IRIS is now in great beauty, and I do not know why it is not made more of.

With me it has never failed to bloom more or less when left alone, but to ensure a really good autumn-winter bloom it must be pulled to pieces and replanted in May; perhaps that is the reason it is not more commonly grown.

With Sweet Peas, Irises, good Roses, and fair Carnations in sufficient quantity in the garden, it is quite uncanny to find in combination (when much shade and moisture can be found) both Snowdrops, Hepaticas, and Crocuses in flower already, while Anemones and Violets become daily more abundant. When to these hardy plants the host of tender-flowering wall creepers is added, the beauty of the Riviera gardens this last day of the old year is a thing to gladden the gardener's heart, and make him forget that winter yet may do some damage after all. "Nothing venture, nothing have" is a good old adage, which was well exemplified the other day when I saw Peinsettias in fair bloom on a sunny terrace near the sea. Who could have believed that so tender a shrub should have survived last winter's frost, and still have had sunshine and warmth enough to bloom again this December? Surely an example to encourage the old as well as the new gardener on these shores.

TRITOMA PRIMULINA is flowering freely now; it is later than usual, as it suffered severely last winter. A really handsome group of this winter-flowering Tritoma is an acquisition of some importance, as the flowering Aloes, which so closely resemble it, do not flower until February. The colour is particularly clear and pleasing, and the spikes of flower last long in beauty. Unlike its congeners the Aloes, it prefers the shade, which is another point in its favour, as shade-loving, winter-flowering plants are rare. I have only succeeded in growing this plant by placing it in the shade, as the summer-heat seems to paralyse its growth, and when the autumn rains come the root rots instead of growing.

The same cause does damage to the zonal Pelargoniums also, and I find now it is best to grow a certain quantity in pots or tubs, placed all summer in deep shade and kept watered and the flower-buds pinched. These plants placed in the sun in October give plenty of flower and foliage at once, while those exposed to the sun all the summer take a long time to recover, and are little or no use for the winter garden, though, of course, they are gorgeous enough in May.

Nice.

EDWARD H. WOODALL.

## THE LATE MR. F. W. BURBIDGE, M.A., V.M.H.

MANY have read with extreme regret of the death of Mr. Burbidge, whom the writer had probably known as long as anyone in the horticultural world. I knew him when he entered as a Chiswick student in 1868, and his is a worthy example to the rising generation of young gardeners upon whom the future of horticulture so largely depends. He possessed indomitable pluck, perseverance, and self-confidence (by no means obtrusively so), which carried him far. The late Colonel R. Trevor Clarke, that fine and kindly-hearted old botanist-gardener, good judge of character, and member of the Royal Horticultural Society's Council in those early days often visited the old garden, and upon one occasion, when the then students were assembled together there, he picked out Burbidge as the one that would be heard of in the horticultural world. Here was a young man

whose early education was confined to the village school and private reading, but who, by persistent application to work and study, carved out for himself a conspicuous position. The Royal Horticultural Society has turned out some fine men from historic old Chiswick, and among them Burbidge will for ever occupy a very high position. What a stalwart champion—by voice and pen—he was of the rights of gardeners; and, if I may be allowed to remark in this connexion, so jealous was he of the gardener occupying his rightful domain that he had little or no sympathy with the new woman-gardener movement. He was also connected with THE GARDEN after leaving Kew. It was on leaving the staff of THE GARDEN that he accepted a commission from Messrs. Veitch to collect and travel for them in Borneo, Sulu Islands, and elsewhere in the East Indian Archipelago in 1877-78, and to-day our gardens are enriched by his many rare and beautiful "finds." The recent obituary notice tells of his later work. Those of his private friends—and they were many—saw exemplified in him the saying of the wise man of old: "A faithful friend is a strong defence, and he that has found such an one has found a treasure."

Quo.

## PRIZES OPEN TO ALL.

### WALL GARDENS.

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA

are offered for the best answers to the following questions:

1. Describe briefly how a wall should be constructed for wall plants.
2. Describe the way the plants should be inserted in both rough stone and brick walls.
3. Describe the sowing of the seed in the wall. Is it better to plant seedlings or to sow seed, and when is the best time both to plant and sow?
4. Name the most beautiful spring, summer, and autumn-flowering plants for sunny walls.
5. Name the most suitable plants for a shady wall and those that give the best effect in winter.
6. Describe the way to treat an old mossy wall which it is wished to sow or plant.
7. How should the plants be treated at all seasons?

The answers must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than January 31. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS, and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

January 18.—Gardeners' Royal Benevolent Institution's Annual General Meeting and Election of Pensioners. Annual Supper at Simpson's, 101, Strand, 6 p.m., Mr. George Monro in the chair.

January 23.—Royal Horticultural Society's Exhibition and Meeting.

January 24.—Croydon Gardeners' Society's Annual Dinner.

**New assistant-director of the Royal Gardens, Kew.**—We understand that Mr. A. E. Brooke-Hunt, one of His Majesty's

inspectors for the Board of Agriculture, has been appointed assistant-director of the Royal Gardens, Kew. Mr. Brooke-Hunt takes a great interest in horticultural education in this country. During the past year a Horticultural Education Association has been formed, chiefly owing to the efforts of Mr. Brooke-Hunt.

**Weather at Shendish, Herts, during 1905.**—Looking through the register I find there have been 214 fine days during the year which has just closed, and 151 days on which rain has fallen. March, November, and June were the wettest months with 3.84 inches, 3.42 inches, and 3.24 inches of rain respectively, while February and December had the least with 1.01 inches and 1.08 inches respectively. The total rainfall for the whole year was 26.71 inches, as compared with 26.45 inches in 1904, which had 162 days with rain, February being the wettest in that year and June the driest.—GEORGE BURROWS, Head Gardener to A. H. Longman, Esq.

**Rainfall in 1905.**—The following was recorded at The Gardens, Hampton Manor, Hampton-in-Arden:

Month.	Total depth.	Greatest fall in 24 hours.	Number of days with 0.1 or more recorded.
Inches.	Depth.	Date.	
January .. 0.96	0.26	27	9
February .. 0.79	0.18	8	11
March .... 3.18	0.52	11	21
April ..... 1.79	0.24	11	30
May ..... 0.50	0.21	1	5
June ..... 2.18	0.31	18	16
July ..... 2.27	0.94	1	11
August .... 4.22	0.65	26	22
September 1.48	0.29	7	11
October ... 1.08	0.30	30	14
November 2.23	0.58	11	17
December 1.01	0.22	1	11
Total .. 21.73			168

The greatest during twenty-four hours was on July 1, 0.94; and the highest sun-heat, July 11 and 25, 130°; highest in shade, June 22, 80°; and lowest, January 20, 14°.—NAIL SINCLAIR.

At Cole Orton Hall, Ashby-de-la-Zouch, Leicestershire, 540 feet above sea level, 1905:

Month.	Total depth.	Greatest fall in 24 hours.	Number of days with 0.1 or more recorded.
Inches.	Depth.	Date.	
January .. 1.38	0.39	9	13
February .. 0.74	0.16	26	15
March .... 2.92	0.26	10, 28	22
April ..... 1.92	0.23	6	21
May ..... 0.49	0.22	1	6
June ..... 2.85	1.23	30	16
July ..... 1.31	0.96	28	8
August .... 3.20	0.44	3, 17	18
September 2.07	0.74	28	10
October ... 1.43	0.53	4	14
November 2.28	0.59	10	20
December 0.98	0.31	28	16
Total .. 22.27			179

—H. WILSON.

**Mr. W. Duncan Tucker**, the well-known horticultural builder, recently gave a dinner and smoking concert to his staff and workmen to celebrate the coming of age of his eldest son, Mr. Duncan Tucker, who on this occasion was presented with a gold watch and chain subscribed for by the employés. The various speeches and expressions of goodwill testified to the friendly feeling that exists between employer and employed. Mr. Duncan Tucker is now admitted to the firm, which will be registered as a limited liability company.

**Cyclamen Low's Salmon.**—I notice with interest your recent remarks with reference to the new coloured Cyclamen Low's Salmon. I remember some years ago we grew a very pretty salmon-coloured variety, but this had puny flowers and tiny growth. The variety with the giganteum habit must be an acquisition indeed, and I shall obtain some seed of it at an early date. I consider the salmon coloured the finest of all shades in flowers, besides being the most uncommon.—A. F. GALE, Leicester.

**Horticultural Education Association.**—A meeting of the above association will be held at the Horticultural Club-room, Hotel Windsor, Victoria Street, Westminster, on the 28th inst., at 2 p.m., for the election of officers and transaction of other business.—A. E. BROOKS HUNT.

**The Gardeners' Royal Benevolent Institution.**—The annual friendly supper of friends of this institution will take place, after the annual general meeting, on Thursday, the 18th inst., at Simpson's, 101, Strand, London. The chair will be taken at 6 p.m. by George Mcnro, Esq., V.M.H. (member of committee).—GEORGE J. INGRAM, *Secretary*.

**Sutton and Sons' centenary.**—The numerous friends and customers throughout the world of Messrs. Sutton and Sons, Reading, the famous seed merchants, will be interested to hear that they have been established at Reading 100 years. In their New Year's letter to their clients, Messrs. Sutton write: "It is with feelings of thankfulness we record the fact that the business founded in 1806 by the late John Sutton, grandfather and great-grandfather of the present partners, not only still remains the exclusive property of members of the same family, but continues under their direct personal superintendence. Such continuity of management and direction by one family is almost unique, and is probably the secret of the steady and persistent growth of the many departments. In 1806 the seed trade as a distinct industry did not exist, and illustrated and priced seed catalogues were unknown. The high-class vegetables and flowers of 1906 have all been developed since 1806 as the result of skilful selection and hybridisation."

**Gardening and the Carnegie Dunfermline Trust.**—Among the objects which are included in the operations of the Carnegie Dunfermline Trust is, as is generally well known, the encouragement of horticulture, and several matters in connexion with this came before a meeting of the trustees held in Dunfermline on the 28th ult. It was reported that the lectures on horticulture given during November and December by Mr. Berry, of the Edinburgh and East of Scotland College of Agriculture, had been well attended. Consideration is being given to a suggestion that further lectures at other seasons should be given by Mr. Berry. The Dunfermline Horticultural Society, which receives generous assistance from the trustees, has made a formal acknowledgment of the assistance rendered to horticulture by the support it receives from the Carnegie Dunfermline Trust. It may also be mentioned that a large rock garden has been constructed in Pittencrieff Park by the trustees. The work has been carried out in a skilful way by Messrs. James Buchhouse and Son, Limited, York. It presents the appearance of a rocky glen in the Highlands. The regular work in connexion with the Pittencrieff Park is being ably carried on under the charge of Mr. Dunagan, the superintendent.

**East Anglian Horticultural Club.**—There was a large attendance of members at the recent annual meeting, held in the Shirehall Hotel, Norwich. After the usual preliminaries the secretary, Mr. W. L. Wallis, presented the annual report, which showed that during the year the club had lost four members by death. Apart from these sad events the career of the club for 1905 had been one of prosperity. The membership started at 293, and finished with 318, and the financial side showed a balance in hand of £120 19s. 9d., as against £116 9s. 10d. of 1904. The monthly exhibitions had been a great success. The thanks are accorded to the donors of prizes, special mention being given to Messrs. Daniels Brothers, Limited, Norwich; Hobbies, Limited, Dereham; Benton and Stone, Birmingham; J. and H. Girling, Norwich; and J. F. Betts, Esq., Norwich.

Mention was also made of the valuable work of Mr. Edward Peake in connexion with the botanical section. The report was unanimously adopted, and will be set out in detail in the 1906 schedule. There were a few minor alterations to the rules, &c. A capital educational syllabus of lectures, essays, &c., has been arranged for the 1906 session. Besides the ordinary business there was a capital array of flowers, fruits, and vegetables.

**New director of the Royal Gardens, Kew.**—The new director, Lieut.-Col. D. Prain, M.B., I.M.S., is an ardent botanist and horticulturist. He succeeded Sir George King in 1898 as superintendent of the Calcutta Botanic Gardens and of the Cinchona plantations and factories in Sikkim, and also as director of the botanical survey of India. His publications on the botany of India are numerous and critical. Lieut.-Colonel Prain's published works are as follow: "Pedicularis," Ann. Calc. B.G., III, Part 1; "Gomphostemma," Ann. Calc. B.G., III, Part 2; "Second Century of New and Rare Indian Plants," by King, Duthie, and Prain, Ann. Calc. B.G., IX, Part 1; "Dalbergia," Ann. Calc. B.G., X, Part 1; "Sketch



LIEUT.-COLONEL DAVID PRAIN, M.B., I.M.S.  
(The new director of the Royal Gardens, Kew.)

of the Life of Francis Hamilton" (Buchanan), Ann. Calc. B.G., X, Part 2; "Leguminosae," in "King's Materials"; "Bengal Plants," 2 vols., 8vo.; "Memoirs and Memoranda," "Botanical Notes and Papers," 2 vols., containing forty-six papers from various periodicals; various papers in "Records of the Botanical Survey of India"; and "Wheat and Mustard," in "Bulletins of the Department of Land Records and Agriculture, Bengal."

**Lachenalias.**—These popular plants are often grown in pots and pans, but to my mind they are equally as pretty, if not prettier, in hanging baskets. August is about the most suitable time for making them up. First of all line the basket with moss. Use a compost of two parts loam and one of leaf-mould, adding a little cow manure and sharp sand. Place the bulbs about 2 inches to 3 inches apart round the sides as the basket is filled with soil. Water well when finished, and suspend the basket from the roof of a cool house. If fed liberally with manure they

can remain in the same basket two years. A very good basket of *L. pendula* is flowering in the greenhouse at Kew.—A. O.

**Commelina celestis.**—I would like to give a word of praise to this lovely half-hardy perennial plant. The flowers are of a beautiful blue; there is also a white variety. When seed lists are being made up, and uncommon plants are wanted, I would say order seed of this. Seed sown the end of May will flower the same year; the seedlings like a light soil. After flowering, the tubers must be taken up and stored like Dahlias, except in very favoured places where the soil is dry. Then they can be left in the ground if the crowns are covered over with ashes. By all means protect or save the tubers, for the flowers from the tubers are even better than from seed.—W. A. SMART, *Crowcombe, Taunton, Somerset*.

**Stock Beauty of Nice.**—This variety introduced a year or two ago is quite one of the best for winter flowering. It is an excellent variety for pot cultivation for the cool greenhouse or conservatory during the dull days of winter, and should also prove of great value for cutting. It is sweetly scented, the colour a pleasing shade of pale pink. The plants flowering in the greenhouse at Kew are very effective. The seed was sown the beginning of September, the plants commencing to flower in about ten weeks from the date of sowing. The percentage of singles is very small. The plants have been grown in a cool pit close to the glass. It lasts in flower for a considerable time.—A. O.

**Yellow-flowered Aimée Vibert Rose.**—The *Journal des Roses* recently gave a coloured plate of this Rose, obtained by M. P. Perny, a distinguished amateur, at Nice. This Rose has now been some six or eight years under observation, and M. Perny has decided to place it in commerce. No other name can be given to it than that of the yellow-flowered Aimée Vibert, for the growth, wood, foliage, and flowering are exactly the same as those of Aimée Vibert. The only distinction between the two plants is in the colour of the flowers. The old Aimée Vibert is white, while the new one is salmon-yellow. It is a Rose which many will wish to have.

**Escallonia floribunda.**—To see this Escallonia at its best in England one has to visit the favoured districts of Devon and Cornwall. By some authorities this and *E. montevideensis* are kept distinct, but it seems more than probable that, even if they differ slightly, this may be accounted for by geographical variation. At all events, it is one of the tenderest of the Escallonias, and, at the same time, when in good condition one of the finest. Standing in the open ground it forms a large bush usually from 6 feet to 10 feet in height. The flowers, which are borne in large terminal corymbs, are pure white, and so numerous as to make a fine display, the effectiveness of which is heightened by the contrast with the bright green leaves. In the London district it may be treated as a wall plant with, as a rule, fairly satisfactory results. In many parts of Ireland it does particularly well, a humid atmosphere being very favourable to its development.—T.

**The giant variegated Tobacco (*Nicotiana tomentosa variegata*).**—One does not often meet with this beautiful variegated form. It is generally used for bold sub-tropical bedding. The plants being grown on for this work are very useful as foliage plants for the greenhouse in winter. Propagation is by cuttings. When the plants become leggy remove several inches of the top and insert as a cutting. From the axils of the leaves young growths will push. If these are taken off when of sufficient length a stock of plants can soon be obtained. Inserted in light soil in a close propagating frame they will soon root. It is also known under the name of *N. collosa variegata*.—A. O.



## NOTES ON HARDY PLANTS.

### AN EVENING PRIMROSE.

(*ENOTHERA BIENNIS GRANDIFLORA* (SYN. *LAMARCKIANA*).

**I**F the true definition of a weed is a plant in the wrong place, this is one of my weeds, coming up in all parts of the garden, and in especial abundance where any leaf-soil has been applied.

I generally sow one or two plants in suitable positions so that they do not have to be transplanted, as they are tap-rooted plants, and unless moved successfully with a large ball of earth do not move well. One such plant has this year been worthy of notice, being a real giant, even among its tall relatives. It formed a large shrub, some 7 feet high and 4 feet to 5 feet in diameter. It was in bloom the whole of July and August, and on summer evenings was a grand sight, some seventy or more blossoms often opening between seven and eight. As no bloom lasts more than a day it occurred to me that it would be interesting to calculate the amount of seed produced by this plant, which little more than a year before must have been simply a tiny seed. It was not such a labour as it seemed to arrive at a relative approximation. The number of seed vessels, not counting the small imperfect ones at the ends of the spikes, was about 1,810. I counted the number of seeds in four fairly-representative pods and arrived at an average of 280 seeds to the pod, not counting the pale-looking abortive seeds amongst the brown ones. This worked out to 506,800 seeds for the plant at the very lowest, the real number, probably, being some thousands in excess of this. This increase from one small seed in about fifteen months must surely be extraordinary, though, doubtless, a well-grown Foxglove or Antirrhinum would be able to give a good account of itself. The Evening Primrose likes a damp soil, rich and deep, this particular specimen growing on a very heavy clay. The stem at the level of the ground had a circumference of 8 inches.

ALGER PETTIS.

### THE MOUNTAIN AVENS.

THE *Dryas*, or Mountain Avens—a small genus—are unassuming plants of dwarf, trailing growth, but excellent in the rock garden or on steep slopes and banks that are sometimes difficult to clothe. It is, therefore, a matter of some surprise that these charming little plants should be so rarely seen in the average well-kept garden, and to my mind the only reasonable explanation is that they are not so widely known as they deserve to be.

*D. octopetala* is very rarely met with in a wild state. I saw, however, a few years ago some plants in an old Scottish garden which were said to have been collected in Sutherland. The foliage is of a very dark green, wrinkled, hoary on the under side, about the size of a shelled almond, and borne horizontally upon wiry, prostrate stems. The flowers are pure white, and, as suggested by the name, are eight-petalled.

*D. lanata* closely resembles the foregoing, but the leaves are clothed with a greyish tomentum, hence *lanata* or "woolly." The plant is Tyrolean.

*D. Drummondii* bears flowers of a bright yellow, and forms a charming companion to the white-flowered species.

*D. integrifolia* is more compact than the others, and makes neat little patches of dark green in midwinter.

When it is desired to establish a colony, or even a plant of *Dryas*, it is not sufficient to trowel out

a bit of soil and cram the roots into the hole thus made, for it is in starting the plants that the only difficulty arises. The roots are tough and wiry, not very fibrous, and it is necessary, especially in a dry, exposed position, to spread them and bed firmly into gritty soil. If a piece of rough, porous stone be pressed well home over the roots it will be to the advantage of the plant, for a stone does much towards preventing the ingress of scorching heat and the evaporation of moisture from the soil. When it is desired to propagate *Dryas* the surest method is to place a stone on the trailing branch near its extremity, gently pressing into previously loosened soil. Do this in spring and the shoot will root during summer, and may be severed from the parent plant the following autumn.

HEATHER BELL.

### MERTENSIA PRIMULOIDES.

**I**F there is one colour among flowers that is more keenly sought after than any other, surely that is pure blue, the colour generally associated with the much-loved *Gentian*. Without a doubt true blue is at once beautiful and rare among flowers, and on that account alone the pretty little *Mertensia* named above should be grown by all lovers of hardy plants. Quite a miniature in its family, it is a plant to cherish rather than merely to admire, and, therefore, the most favoured spot in the garden is not too good for it. Still, we speak thus of the plant because of its seeming modesty and loveliness, not because it is one of those things that require continual coaxing and nursing. *M. primuloides* is quite well able to look after itself, as well, in fact, as the taller and coarser members of its family. The height of the whole plant may be measured on one's fingers, and the slightly arched flower-stalks are just long enough to keep the flowers above the leaves, against which they show to advantage. Until the plant has had time to become cheaper and more plentiful it is useless to advise planting in good-sized colonies, but undoubtedly it will be necessary to do so before the full value of the rich colour can be estimated. In the meantime the best thing is to get one or two and set about increasing the stock, which is not a difficult matter.

Neston, Cheshire.

HEATHER BELL.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### DÆDALACANTHUS PARVUS.

[TO THE EDITOR OF "THE GARDEN."]

**S**IR, — *Dædalacanthus Wattii* is the correct name of the *D. parvus* mentioned in THE GARDEN of the 9th ult. (page 363). It was discovered by Dr. (now Sir) George Watt, only in seed, and sent to me from India labelled "*Crossandra* sp." When it flowered it proved to be a new species of *Dædalacanthus*, and I exhibited it at the Royal Horticultural Society's meeting under the name of *Dædalacanthus Wattii*. It received a certificate under this name, and was mentioned in the *Gardeners' Chronicle*. I afterwards sent it to Kew and to Messrs. Veitch under this name, but at Kew it appears by some error to have been re-christened.

It is a valuable plant, and, like all other *Acanthaceæ*, is most easily propagated from cuttings. It has, however, one disagreeable habit—occasionally plants will bear very small and inconspicuous flowers (cleistogamic?) instead of the fine, large, deep purple ones which it ought to yield. These flowers seed freely, and the seeds germinate at once when sown. This bad habit is shared by *Eranthemum cinnabarinum*. I have not so far found out any way of counteracting it.

R. H. B.

## YOUNG GARDENERS' OPPORTUNITIES.

[TO THE EDITOR OF "THE GARDEN."]

**S**IR,—Do young gardeners take full advantage of their opportunities? To this question, in the majority of cases, I should answer most emphatically, no! Many, no doubt, think that when their day's work is ended that they have done enough, so they spend the evening perhaps at some place of amusement; anything, in fact, rather than devote a short time to study. If one or two evenings a week were set apart for the purpose of education what a great deal of benefit might be derived therefrom. There are many subjects that might be studied with advantage, for instance, botany, geometry, literature, &c., and, indeed, many others, but it is a rare thing to see a young gardener devote much time to study. I suppose all young gardeners hope to hold the position of head gardener sooner or later, and surely there can be no better training than scientific study in conjunction with their work. The gardening papers should be diligently perused by all, as, indeed, they are by those who are ambitious and anxious to succeed, but, unfortunately, they are overlooked by many. Some bothies possess good libraries, which, if they were more often put to use, would be a very material help to the coming generation of head gardeners, and I am sure it would help to raise the status of the profession, for surely too much attention cannot be given to education by young men of the present day.

Elstree.

J. GARDNER.

## COOKING POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

**S**IR,—“A. D.” writes on page 397 to oppose the excellent and common-sense advice, which had been given in a previous issue, that Potatoes should be boiled in their skins. His note seems written, if he will forgive me for saying so, for the sake of sheer contradiction, for not a single one of his many arguments will hold water nearly as well as a poor Potato does when peeled before boiling. And some of his contentions seem curiously upside-down ones. He argues that we should peel old Potatoes because young ones are “invariably scraped hard.” That is to say, because our ignorant cooks spoil a vegetable in one stage, therefore we ought to spoil it in all its stages. Young Potatoes ought never to be scraped. They may be rubbed in a cloth to remove the mere outer film, as this leaves an under skin which protects them from the water and is soft enough to be edible. When the skin has become too hard to be treated in this way it should be removed after boiling, never before. The dangers and drawbacks to flavour of “fungoid spores” on the skin, of manure-impregnated skins, and of bitterness in the skin from exposure to light are purely imaginary so far as my experience goes—and I have eaten all sorts and conditions of Potatoes boiled in their skins ever since I came to years of discretion in these matters. “A. D.” asserts that all these evils, if present on the skin, boil through it into the tuber. As a matter of fact, the skin is practically impervious to anything of the kind. On the contrary, if the cook peels Potatoes with unclean skins, the knife carries the taste into the substance of the tuber, with its naked tissue thus exposed by cutting. But “A. D.” is also shocked at the dreadful after-effects of cooking in the skin. Heat is lost, he says, if the cooked Potatoes are skinned before serving. I can only say that they appear on my table too hot to eat; it is merely a matter of quick fingers and a hot dish. And “if sent to table in their coats, how objectionable to have these coats lying about on the consumer's plate!” Well, if the consumer is really so squeamish, he can always put the skins in his pocket or drop them under the table when no one is looking. A more polite and very usual remedy is to have a side-plate for Potatoes



as for salad. "A. D." adds: "It would be as reasonable to send Peas cooked in their pods to table as Potatoes in their skins." I fail to see the logic. The two things do not go on all fours. Shelled Peas possess a skin which protects their substance from the water, and they have no need of their pods to effect this. If they were improved by being boiled pods and all, I for one would cook them thus. Finally, "A. D." discards all argument, and boldly begs the whole question by a downright assertion, so that he can scarcely complain if he is met by a downright denial. "A good Potato," he writes, "will, if properly cooked, be far more presentable at table if peeled first, and can be served up in all its goodness." I will admit this if I may write "which is impossible" after the word "cooked," and "except what has boiled out into the water" after the word "goodness." The kind of peroration with which "A. D." concludes, "the assumption that peeled Potatoes when well cooked lose in flavour or nutriment is illusory," is rather more difficult to deal with. There are scientists of a sort who teach us that all sensations, from that of a broken leg to a cold in the head, are merely "illusory," and, of course, my sensation of Potato flavour may be the same, but I cannot follow "A. D." into metaphysics. But I would draw attention to his repetition of "presentable" and "appearance." Here is the queer old British superstition that fruit and vegetables are firstly to look at, and only secondly to eat. Why not make Potatoes thoroughly "presentable" by boiling them with cochineal and serving them in frills? G. H. ENGLEHART.

### SOLANUM JASMINOIDES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The illustration represents *Solanum jasminoides*, which was untouched by 12° of frost. *Barcombe Place, Sussex.* E. GRANTHAM.

### MILDEW ON ROSES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am quite in accord with your editorial note that this subject is of importance to Rose growers; at the same time, if you will permit me to say so, with all due deference to my friend Mr. Goodwin, the publication of lists of Roses that may happen to be more or less free from mildew in any particular garden is not the kind of information that is required. What the majority of Rose growers want to know in this matter is not what varieties suffer from mildew, or *vice versa*, but how to deal effectively with the disease when it comes.

My personal opinion (given certain conditions favourable to the disease) is that 90 per cent. of all Hybrid Teas and Hybrid Perpetuals and 50 per cent. of the Teas are liable to mildew, and that the situation of the bed or plant has as much as anything to do with the immunities or otherwise of that particular bed or plant. I know it was so in my old garden, where all the soil was alike (being all "made"). A Rose on one side of the garden was affected; the same kind on the other side was free. In fact, I might say the shady side (shady by reason of the nearness of trees) nearly always suffered in the autumn, be the season wet or dry, and although I took care to grow on that side Roses that were less likely to be attacked, such as Ulrich Brunner, Caroline Testout, and all my Teas, the mildew invariably put in an appearance, and nothing I could do in the shape of flowers of sulphur, sulphide of potassium solution, or any other so-called remedy was of any real benefit. I have perused carefully the list of the Hybrid Teas mentioned by Mr. Goodwin and Mr. A. H. Pearson as mildew-proof, and with the exception of Anne Marie Souper and Lady M. Corry, which I did not then possess, the whole of them suffered more or less in my garden in a situation I admit favourable to the disease.

The same remark no doubt applies to your correspondent "L. W.-N.," whose garden is situate 700 feet above sea level, in which a bed of Grüss an Teplitz suffers throughout the whole season, namely, that in the situation of the bed (and possibly unhealthy root action) is to be found the cause of the attack, as my experience of this Rose—and I had some of the first plants that came to this country—is that it is entirely free from mildew till the very late autumn, when the new wood is affected slightly in a bad season like the last.

Enough I think has been said to prove the point I want to make, namely, that a remedy for the disease will be more useful to rosarians than lists of Roses that are not affected by that disease. We all know what mildew is, and that rapid changes of temperature seem to favour its growth, but few of us know a remedy, and if any



SOLANUM JASMINOIDES ON A SUSSEX HOUSE.  
(From a photograph kindly sent by Lady Grantham.)

reader of THE GARDEN is in possession of same and will impart his knowledge he will earn the gratitude of a good many besides

HERBERT E. MOLYNEUX.

Brantwood, Purley.

MRS. FLECKER writes from the Dean Close School, Cheltenham: "I should like to mention that for about seventeen years we have had many W. A. Richardson Roses here, and have never seen either blight or mildew upon them. The soil is strong clay, and budded on the Briar they make enormous growth and flower profusely. Except for some poor pale blooms which occur sometimes in a dull season without sunshine, they are absolutely healthy, and give no trouble whatever—but to keep them within bounds. I wish I could grow the Banksian Roses as well; they are covered with mildew year after year for some reason, and I may have to root them out."

### THE QUALITY AND FLAVOUR OF MELONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. J. Kipling, in THE GARDEN of the 16th ult., has done good service in drawing attention to a variety of Melon named Lord Derby, possessing, as he says, in addition to all the good qualities a Melon should have (which he details), the further crowning quality of "a decided Pine-apple flavour." Now that Pine-apple growing in England has ceased to be what it was, it will be good news to Pine-apple lovers that they can have the partial enjoyment of this rich and delicious fruit by the simple process of growing Lord Derby Melon. The Melon being of the Cucurbit family, what puzzles me as an old Melon grower

is the mystery as to how the Pine-apple flavour got into the Melon in the first place. Is it a cross between the two, I wonder? Another strange thing about this remarkable Melon is that, although it has been out for some time, one scarcely ever sees or hears anything about it, either at exhibitions or among private gardeners.

Mr. Kipling having been successful in discovering a Melon possessing this wonderful quality, his services ought to be secured by the Royal Horticultural Society to preside over the deliberations of the fruit committee during the present year, in the hope that he may discover another variety amongst the many new ones placed annually before that body for recognition (but which they regretfully have to reject) possessing possibly a Peach or it may be a Muscat Grape flavour.

AN OLD MELON GROWER.

### POTATO LEAF-CURL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read with much interest on page 361 of THE GARDEN "A. H. L.'s" article under the above heading. This disease has been prevalent in this district this season, more especially on the grounds of those growers who are in favour of hard-ripened tubers for planting. I have proved beyond doubt that this is a mistake. After several years' observation I have come to the conclusion that the way is to plant almost direct from the clamp, or, better still, to secure fresh tubers for planting each year, and the result will be satisfactory.

Ormesby, Great Yarmouth.

C. NICHOLS.

### FLAVOUR OF BRUSSELS SPROUTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN, November 25, a correspondent writes about the flavour of Brussels Sprouts, and says, "So much depends on the cooking." That is quite true; but did he ever think of the unreasonableness of cooking tender and fresh vegetables the length of time he advocates? We eat Lettuce and other greenstuffs uncooked, and for my part I consider Cabbage and such like stuff much nicer when boiled not more than five minutes. Three minutes is enough in some cases, but I advise four minutes for a start.

Sheffield.

H. I.

## THE FRUIT GARDEN.

### PLANTING FRUIT TREES.

MUCH-NEEDED ALVIOF.

ADVISE in planting hardy fruit trees has been repeatedly given, but the reiteration is necessary, as mistakes are continually being made, and the subsequent correction is a matter of the greatest difficulty. A fallacy has got abroad that equally good results can be had from fruit trees planted without regard to the time-honoured common-sense methods. This must have arisen from the distorted rendering of conclusions or a strange misconception of the facts. Not long since it was gravely asserted at a gardeners' meeting that the care ordinarily advocated and exercised in such work was so much wasted time. The mere record of such doctrines must have a pernicious effect. There is quite sufficient tendency to carelessness, on the part of beginners especially, without encouraging its extension by a misdirected pseudo-scientific advocacy. The facts are simple enough and familiar to all planters of experience. Root injury *must* affect the growth of a tree, it is only a question of degree. The damage may be so small that only a slight check is perceptible, or it may be so considerable that even though the tree

survives, the effect is visible in stunted growth for years. In the extreme, before new roots can be produced the tree is exhausted and death ensues. When dealing with plants under glass it is in our power to counteract to some extent the evil effects of root injury by reducing transpiration, thus giving the plant time to recover; but this aid we cannot supply in the open ground, though certain conditions may favour the process more than others.

The circumstances which influence results in planting fruit trees, or any others of the deciduous type, are briefly the following: (1) The health of the tree, (2) the character and quantity of the roots, (3) the treatment these receive in transplanting, (4) the physical character of the soil at the time, (5) the weather which follows the planting, and (6) the atmospheric and climatal conditions prevailing at the site of the plantation. Taking these in the order named, the health of the tree is mainly due to the cultivation it has had, but is partly the result of varietal peculiarities. A tree which has originated from a bud or scion that has made an imperfect union with its stock, or one which has been stunted in its early stages, is not in the best condition to resist the ill effects of transplanting. The constitutional strength, with the attendant recuperative powers, differs greatly in some varieties, and the treatment which might prove almost fatal in certain cases has but a temporary effect in others.

The character and quantity of the roots are dependent upon the stocks employed, the treatment received, and the varieties. Successful transplanting is greatly favoured by an abundance of fibrous roots, an elementary fact on which every nurseryman founds his practice in the preparation of trees for sale. Apple trees on the Crab or seedling Apple stock are apt to have long, thick, fibreless roots, which are considerably reduced or unavoidably injured in the operation of lifting them from the ground. Such trees are likely to show the effects of transplanting in a marked degree, if other conditions are unfavourable, but if two sets of that kind are compared, one of which has had some additional maltreatment, the differences may not be very marked. The primary damage completely overshadows the secondary and experimental injury. On the other hand, the strength of the root-stock, which in the case of three year old Apples or Pears on free stocks, may be five or even six years old, permits an early recovery if the trees are not subjected to very trying atmospheric conditions.

The treatment of roots in transplanting not only includes the care requisite to preserve as many as possible with the minimum of injury by wounds or laceration, but also protection from exposure to drying air or to frost. In a general way more permanent damage is caused by the drying of the roots than by frost; it is often forgotten that low temperatures are frequently attended by an exceptionally dry state of atmosphere, and it is possible for evaporation to proceed so far that the whole root system is disorganised.

Spreading the roots out as evenly as circumstances permit, in a horizontal direction, and within a moderate distance from the surface, are such obviously reasonable aids and precautions that they might suggest themselves to the inexperienced. The benefits arising from trimming the jagged or broken ends of roots can be seen in the ready healing of the wounds, the "callusing," and the emission of fibrous roots exactly as with cuttings. Torn and ragged roots frequently die back precisely as branches will that have not been pruned cleanly and with a sharp knife. That some heal and form roots without the attention advised is no proof that the operation is "a waste of time"; they are the exceptions that indicate a special degree of vitality, of which abundant examples are afforded in vegetable and animal life.

The physical character of the soil exerts a highly important bearing upon success in planting, sufficient aeration is needed to permit the

chemical and bacterial actions so essential to the due performance of root functions. In a heavy, tenacious soil, containing excessive moisture at the time of planting, the firming needful to ensure the safety of the tree, causes a condition almost impervious to air and proportionately unfavourable to root health. Further, if the soil is not sufficiently broken down, and is filled round the roots in large clods, many roots are but partly in contact with the soil, they are unable to perform their proper functions, and are subject to severe drying influences in hot seasons.

The weather which follows the time of planting is, of course, out of the grower's power to foresee or to control, but he has to judge by probabilities, and it is the only consideration seriously affecting the choice of the season for planting. If late planting is followed by a very dry spring some trees are certain to suffer; if it be moist and dull as much success can be obtained as earlier in the year. We prefer early autumn planting for many reasons; but we have secured a full measure of success from October until April when the soil permitted, only there is the risk mentioned, at the later time, which should be avoided whenever it is possible to do so.

The atmospheric conditions prevailing at the selected site exert an influence on the behaviour of newly-planted trees, which is often overlooked. In low situations near water, where the air is normally almost saturated with moisture, transpiration is less rapid, and is restricted to a shorter portion of the day, than upon higher and more exposed positions. So marked is this that it serves to equalise many influences that might otherwise result in considerable difference in the progress of the trees. It is conceivable that some experiments under such circumstances might lead to very erroneous conclusions where the peculiarities of the locality were not given their due weight.

In short, desirable as extended planting is, both of fruit and other trees, "sticking in trees" is not the method which is calculated to give satisfaction either to proprietor or planter. Let us bring to our aid all the sound science we can command, alter our methods, and reform our systems where substantial proof is afforded for the advisability of such a course, but the following of fantastic fads will simply lead to disaster.

AN OLD PLANTER.

## THE KITCHEN GARDEN.

### SELECT VEGETABLES FOR 1906.

(Continued from page 15.)

**B**EETS.—The new Globe or early section of late years has been much improved. Crimson Ball and Globe are excellent. For a small long sort the old Dell's Crimson is difficult to beat; it is also a long keeper. A favourite Beet for general use is the Cheltenham Green Top, a beautifully coloured and well flavoured sort, rather large, and should not be sown too early. Such sorts as Blood Red, Nutting's Dwarf, and Pragnell's are shapely roots for exhibition.

**BROCCOLI** form a large family. Unfortunately, some sorts are not very hardy. For early sowing a good stock of Snow's Winter White, Michaelmas White, and the most useful Self Protecting are valuable; and for main crop, Early White, Penzance Main Crop, and Spring White. The sprouting varieties are useful where there is a large demand; and for late use Model and Late Queen are most reliable. To this, for June cutting, should be added June Monarch. Borecole or Kales are excellent for use from December to May. Select Dwarf Curled, Read's Hearting, Arctic Curled, and Improved Hearting, with the new Drumhead, as these will give a full supply. Large or coarse Brussels Sprouts are not the best. Paragon, Northaw Prize, Matchless, and Dwarf Gem are all good.

**CABBAGE** is an important vegetable, and for early spring use April and Flower of Spring are most useful. The older Eilam's Dwarf is for summer use, Matchless, Main Crop and Colewort for early autumn, and St. Martin and Christmas Drumhead for winter.

**CARROTS**.—In a private garden mere size is not wanted. Early Nantes, Early Gem, or the Shorthorn section are good for the summer, whilst for later use Model, Matchless, Scarlet, and Scarlet Intermediate are excellent.

The **CAULIFLOWER** is an important vegetable, and to be a success should be grown in three sections—early, mid-season, and late. The first named must include First Crop, Early Forcing, Defiance Forcing, and Snowball. These we grow largely in frames, but they are excellent on warm borders. To follow them there is a good choice amongst Pearl Dwarf Erfurt, Purity, and Mont Blanc, whilst for late supplies the Autumn Giant and Autumn Mammoth are very good.

**CELERY**.—Such sorts as Early Rose, Superb White, Solid White, Solid Ivory White, and Standard Bearer are all good.

**CUCUMBERS**.—The Every Day, Improved Telegraph, and Matchless are excellent.

G. W.

(To be continued.)

## TURNIP-ROOTED CELERY OR CELERIAC IN WINTER.

THIS vegetable is a valuable addition to our ordinary winter supply, and it is worth more notice by those who require good vegetables from November to April. I will not in a brief note go at length into cultural details. These I have previously noted in *THE GARDEN*, but I would add that few vegetables are grown with so little trouble. Last week I noticed large quantities of imported roots in the market, and very good they were. The Continental growers have evidently got a very fine type of this vegetable, but given good seed, fair culture, and ample food in the shape of moisture and plenty of liquid manure, anyone can grow as good roots as the imported ones. Unlike Celery, there is no moulding up, at least it is not necessary. Neither trenches nor quantities of decayed manure are wanted, the edible portion being the root. This to be good should be as solid as possible, and free from side roots or split crowns. The imported ones are examples, and they remain good a long time after lifting. When stored like Beet they are good till April. In addition to its use as a boiled or cooked vegetable, it is delicious when served like Beetroot in a cold state or mixed with salad. There are several ways of cooking it as a vegetable, and served with good gravy or sauce it is delicious.

G. WYTHES.

## A VALUABLE COOKING CELERY.

Or late years Celery has been more used in a cooked state than formerly, and for this purpose I find a dwarf white Celery most useful, as there is less waste, and its dwarf growth is much in its favour. Any variety of Celery may be boiled or cooked in various ways for use as a vegetable, but it is well to grow the best, and of late years White Gem has been our favourite sort for that purpose. In addition to its dwarfness it is very solid, and there is little waste. It is one of the earliest to mature, and when used as a salad I do not know of a variety that is so sweet, crisp, and has such a nutty flavour. Its dwarf growth I find causes fewer failures, the plants rarely run or bolt, and this is a strong point, as some of the large growers fail in light soils. Owing to its solid thick growth White Gem when once grown for use as a vegetable will become a great favourite. Many would find Celery in a cooked state a valuable addition to the vegetable supply from October to March, a period of the year when there are none too many good vegetables to select from. Many could eat it in a cooked state who are unable to do so as a salad.

G. W.

# ODONTOGLOSSUM WILCKEANUM SCHRODERIANUM.

In the accompanying illustration part of a raceme of a beautiful new Orchid is shown. The stem from which the sketch was made carried a large number of flowers. The individual flower is large and handsome, heavily blotched with chestnut-red upon a cream-coloured ground. The lip is large and well formed, and of a lighter shade than the sepals and petals. It was exhibited before the Orchid committee of the Royal Horticultural Society on the 19th ult., by Mr. H. Ballantine, gardener to Baron Schröder, The Dell, Englefield Green, Surrey, from the famous collection of Orchids there.

## THE ROSE GARDEN.

### ROSE FRAU PETER LAMBERT.

**I**F pedigree in a Rose counts for anything we should have a most valuable acquisition in this variety. It is of German origin, being raised by N. Welter, and distributed in 1902, after having gained an award of merit from the German Rose Society. At the end of September I was visiting the extensive Rose grounds of

with that rich rosy salmon shade which one gets in Mme. Abel Chatenay. The raiser obtained this Rose by crossing a seedling which he had raised between Kaiserin Augusta Victoria and Caroline Testout with Mme. Abel Chatenay. It is named after the wife of the respected editor of the *Rosen-Zeitung*, whose achievements have quite revolutionised the Rose world. One can but wish that it was not scentless, and that it possessed a little more vigour, for then it would, undoubtedly, stand in the first rank of hybrid Teas.

ARTHUR GOODWIN.

### JOTTINGS ABOUT ROSES.

(Continued from Vol. LXVIII., page 415.)

THE sixth and last variety recommended is *Dawson Rambler*, and a very excellent Rose it is. Few of the multiflora hybrids excel it in beauty and freedom, and *Euphrosyne* is quite surpassed by it. With me it is always one of the first to begin flowering, and the season has to be a very backward one if some of its flowers are not open before May is out. Then, again, it is superior to many of the multifloras because the

of evergreen shrubs. I have one which has gone up a tall Holly without any training or encouragement whatever, and next year, no doubt, it will afford a fine display. Several of my climbing Roses are in tubs with the bottoms knocked out. In this way I have Mme. Plantier and Dorothy Perkins trained against large Yew trees. Both are growing well, and Mme. Plantier has been very beautiful these last two summers. Bennett's Seedling is also planted in this way, and is making steady headway up an old Oak, whose shade is still somewhat dense.

*A selection of Tea-scented Roses for bedding.*—The plan of the sunk Rose garden is excellent and should prove of the greatest use to those who are fortunate enough to have such a piece of ground to lay out in this manner. Question V. is devoted to the varieties necessary to fill the twelve beds in the plan, and it is here that I should like to suggest some improvements. The question and the answer, together with the editorial comment upon it, are as follow: Name dwarf Tea Roses for the beds given in the plan, one variety to each bed. Consideration must be given to contrast in colour and habit of growth of varieties, freedom of flower essential, and no tender varieties should be used.

Answer.—1, G. Nabonnand; 2, Sunrise; 3, C. Mermet; 4, Mme. Lambard; 5, Hor, E. Gifford; 6, Mme. Hoste; 7, Marie van Houtte; 8, Souv. de S. A. Prince; 9, Corallina; 10, Bridesmaid; 11, Mme. Charles; 12, Jules Finger.

[In the answer to Question V. we should have substituted Mme. Jean Dupuy for Catherine



ODONTOGLOSSUM WILCKEANUM SCHRODERIANUM (NATURAL SIZE).

Exhibited recently by Baron Sir Henry Schröder, Bart., before the Royal Horticultural Society, and given an award of merit.

Messrs. Pearson and Sons at Lowdham, and a row of this variety at once attracted my attention. Viewed from the point of a "garden" Rose it is, undoubtedly, of considerable merit. It is very free, and although it comes under the heading of pinkish shades, of which we already have such a plethora among hybrid Teas, yet it is quite one of the most distinctive varieties I have come across. Its chief faults are that it is a rather stumpy grower, its flowers are held almost too stiffly to be decorative, and it is scentless. Despite these drawbacks I would still recommend it as a magnificent Rose for cutting and for placing in the forefront of a Rose border, especially as it is always in flower both early and late. The blooms are held erect on stiff stalks, and are good alike in quality and substance. In colour they are a soft rose-pink, with a distinct and very attractive whitish edging, while the centre is flushed

plants flower when quite young, and one does not have to wait, as in the case of *Aglaia* and others, for three or four years before getting a good display. I have never tried it against a tree, but should imagine that it would be quite a success in such a position.

*Blush Rambler* is an excellent addition, and I can well imagine that it would be of great value for rambling up a tree. It is very free and vigorous, and quite young plants yield splendid trusses of Apple blossom-like flowers.

*Moschata alba*.—The Garland, Evergreen Gem (*Wichur.*), Brunonis, and its double form are all varieties which I have seen planted against trees with successful results. Where the shade is not dense and the host not too vigorous there is nothing to prevent some of the finer climbers from being used, choosing none that are very tender. Soil, too, is a great factor in the situation, and, in addition, there are some trees the drip of which is quite fatal to Roses and other plants. The new *wichurianas* make fine effects where they are allowed to ramble amongst the branches

Mermet and White Maman Cochet for Bridesmaid, as these two are bad growers.—Ed.]

The first Rose on the list to which I must take exception is Sunrise. It would, indeed, be hard to find a variety more unsuited for outdoor culture in these islands than this, and it was a surprise to me to see it recommended. My advice to readers of THE GARDEN is not on any account to plant Sunrise as a bedder, for it is a most wretched grower, tender, and injured by the first bad weather. Under glass it is superb, but in the open there is no getting over the fact that it is a dismal failure. In its place I should plant

*Préfet Monteil*, a fine canary yellow Rose sent out by Bernaix some years ago. It is a capital grower, with an excellent constitution and very free. The buds are pointed, and are held erect on good sturdy stalks; the flowers are of excellent form and very deep petalled. Altogether it is a fine bedding Rose of good habit and with fine foliage. With the editor's decision to strike out Catherine Mermet and insert Mme. J. Dupuy I agree. The latter is mildew proof, hardy,





THE WATER LILY POND AT KEW.]

and always in flower. What more could be said of any Rose? Mme. Lambard and Hon. E. Gifford are two grand Roses and easily retain their position, but Mme. Hoste in my judgment should come out. It is too sensitive to wet, and I should like to give its place to Lady Roberts or Anna Olivier, which is still hard to beat. Marie van Houtte, of course, is indispensable, but Souvenir de S. A. Prince droops its flowers, and this alone is a most fatal defect in a garden Rose. In its stead I should employ

Mme. Berkeley, remembering its fine erect habit, bold leafage, grand autumnal effect, and freedom from the mildew scourge. Corallina, of course, stays. It is a magnificent garden Rose, a great grower, and one of the very finest of that long list of good Roses emanating from Waltham Cross. In place of Bridesmaid, a variety wholly unsuited for outdoors, the Editor suggests White Maman Cochet for the vacancy. Here I must venture to differ, as neither of the Cochets are suitable for bedding. Their large heavy flowers droop and are not seen to any advantage, while in a wet season they damp off without attempting to open. Mr. William Robinson, than whom there is no one in the country has had more experience in the growing of Tea-scented Roses for bedding, very rightly condemns Maman Cochet as useless for bedding. Modesty in a Violet is all very well, but it is not quite what is wanted in a bedding Rose. In its place I would put

Docteur Grill, which is one of the freest and most beautiful Tea-scented Roses we have, and this in spite of all the unkind things which "Elizabeth," in her "German Garden," says of it. Perhaps it is not as hardy as some, but I find most people can grow it successfully, and here it is quite reliable. The list is very deficient in reds or crimsons, so I would suggest that Mme. Charles be left out in favour of Princesse de Sagan, which no Tea Rose lover should be without. Its growth may not be perfect, but its brilliancy of colouring makes it indispensable. As for Mme. Jules Finger, it has never been a favourite of mine, and, indeed, I have never before heard anyone commend it for bedding. It is peculiarly sensitive to bad weather, and is apt on some soils to come misshapen; on this score the great majority of English growers have discarded it.

Several beautiful Tea-scented Roses are not included in this list, notably Mme. Antoine Mari, Comtesse Festetics Hamilton, and Morning Glow. They are a trio of exquisite sorts, but my choice would fall without hesitation upon the first-named were I perfectly sure of its hardiness. But with me and several of my rosarian friends it has unfortunately proved a little tender, and as hardiness is a *sine quâ non*, I will pass it over and fill the vacancy with

Comtesse Festetics Hamilton, a Rose of beautiful colouring, very lasting, and standing wet well. It is a good grower, fairly free, and, although so little known, it is, as Messrs. William Paul and Son describe it in their catalogue, an excellent variety. In order to secure the best effects of colour and habit of growth I should suggest that the beds in the plan be planted with the varieties in the order given below: 1, G. Nabonnand; 2, Préfet Montell; 3, Mme. Jean Dupuy; 4, Princesse de Sagan; 5, Hon. E. Gifford; 6, Mme. Berkeley; 7, Marie van Houtte; 8, Anna Olivier; 9, Corallina; 10, Dr. Grill; 11, Mme. Lambard; 12, Comtesse Festetics Hamilton. The consideration of Questions VI. and VII. I will leave to a future article.

ARTHUR R. GOODWIN.

The Elms, Kidderminster.

## THE FLOWER GARDEN.

### MINIATURE - FLOWERED POMPON CHRYSANTHEMUMS.

THIS group is still very small, although there is nothing among Chrysanthemums to compare with them for cutting. They are seldom met with, yet, either for the conservatory or for cut flower uses, they are invaluable. Several of the better varieties flower quite late in the season, and in consequence are more highly valued than they would be were they to do so early in November. Those deserving special notice are the following:

*Snowdrop*.—A pretty little pure white flower borne in graceful sprays. The plant is

of good habit, height about 3 feet, and it comes into flower in late November and December.

*Primrose League*.—A primrose-yellow sport from Snowdrop, with all the characteristics of the parent variety.

*Delight*.—This is a new variety sent out from Ryecroft Nursery last spring as a decorative single sort, having five or six rows of petals. As a matter of fact it is a beautiful companion to the two first-named sorts, and may be regarded as a distinct acquisition. Colour blush pink. The plant is of excellent growth. Late November.

*Katie Mannings*.—A charming little flower of perfect form, colour rosy bronze. It comes into flower in early November. Bushy habit and free flowering. Useful for all purposes.

*Lilac Gem*.—This had not been seen for some time until it was exhibited at the Crystal Palace recently. It is a dainty little pale lilac flower of pleasing form, and flowers in late November and early December.

*Model of Perfection*.—The flower in this instance merits the name. The colour is rosy lilac. The plant is dwarf, bushy, and flowers in November. Introduced in 1873.

D. B. CRANE.

### WATER LILY POND AT KEW.

To thoroughly enjoy the fine coloured Water Lilies which we owe to the enterprise and skill of M. Latour-Marliac, it is necessary that they should be grown in positions at no great distance from the eye. In the large lake at Kew their effect is apt to be lost, while in the herbaceous ground tank there was no room for their fully-developed growth.

After seeing the pond in which Lord de Saumarez so successfully grows Water Lilies at Shrubland Park, it was decided to again bring into use an old dried-up pool in the Pinetum. The bottom was carefully puddled with clay, and this with a little patience was eventually made water tight. The water was conveniently supplied by the condensed steam from the engine-house. This still retained some heat and made the growth of many half-hardy aquatics possible. One of these, *Thalia dealbata*, is a striking object in summer. On the north and south sides the turf slopes to the water edge, and Canada Rice (*Zizania aquatica*) flourishes in large clumps. On the other sides, the banks are masked by tangled masses of shrubs.

It had long been intended to grow some representative Water Lilies in the Berberis Dell, where they would find themselves in the neighbourhood of their botanical congeners. It was effected last year by the construction of a small tank on a level with the turf. This was an attempt to imitate the admirable water garden of Sir William Farrer at Sandhurst Lodge.

Kew.

W. T. THISELTON-DYER.

### A BEAUTIFUL IRIS.

I SEND you a photograph of a plant of *Iris ochroleuca*, which, when it was taken, measured 6 feet through, was more than 5 feet high, and had forty-one spikes, most of which carried four blooms. I have always considered this species a shy bloomer; it has never given more than from six to a dozen spikes before. Being a moisture-loving species, had the excessive rainfall of 1903 anything to do with its floriferousness in 1904?

JOHN HENSHAW.

Rothamsted Cottage, Harpenden.

## THE ANNALS OF THE LITTLE RED HOUSE.

### XI.—ROSES.

THESE little articles are now drawing to a close, and on looking over some of the back numbers I find I have not said much about our Roses as bushes and climbers, and nothing about ornamental shrubs. The subject of Roses has been lately so exhaustively treated in the pages of THE GARDEN that there does not seem much to say. Every year fresh varieties are put upon the market, but we are contented with our old stock, adding one or two varieties occasionally. One little bit of advice I would give: keep your Hybrid Perpetuals and Tea Roses apart, for they want different soils, and both are intolerant of a position in the mixed border. I have taken all the Roses out of the borders, with the exception of the Crimson Ramblers, and Tea Roses over the arches, which here and there span the intersecting paths leading into the kitchen garden and orchard. These arches are very simple, and are made like the pergola, of six strong unbarked Oak posts crossed with short pieces of the same wood, strongly bound together with galvanised wire. Two of these arches are now quite covered with the Crimson Rambler Roses and Honeysuckle, the two blending admirably; and in their half shade beneath the Madonna Lily (*Lilium candidum*) flourishes exceedingly. These arches face each other, and from one runs a long path through the kitchen garden. It is edged with the sweet old-fashioned white Pink, which nothing shall deprive me of, and it is crammed with the multi-coloured Primroses, Dean's hybrids, Polyanthus, and the double sorts, white, lavender, red, and yellow; Auriculas, Anemones, and quantities of bulbs for spring flowering. These charming things are backed by old-fashioned Boursault and Provence Roses, Maiden's Blush, and Moss, which give, as the summer advances, the requisite shade which the Primula family demand. A certain quantity of annuals are sown here in the spring to keep up the colour scheme, but this border is more or less dedicated to spring, and nowhere in the garden do the Primroses flower so well. They keep wonderfully true to colour in their seedlings, which I find in hundreds all over the gravel paths. These are now lifted and planted in the orchard grass; the old clumps can be divided at any time.

To return to the subject of Roses, I find the ramblers all do so much better trained over a young Fir sapling with its branches just shortened back. This variety seems to call for light, abundance of air, and their own sweet will. The Rose Queen Alexandra, for instance, has not been satisfactorily trained over the balustrades, so the plant is to be moved and planted against a Fir pole; and the Waltham Rambler, too, is pecky and discontented, so it will be given another start over an old Apple tree. I hope Lady Gay will prove as good as her word, or the word of her admirers; but Roses in an exhibition tent are often very misleading.

With us Aglaia has behaved in a manner beyond all praise, and evidently likes the position we have given her, trained along the balustrades. She is, however, not a bright yellow, as is stated in Rose catalogues, but quite a pale primrose, whitening under the sun's rays; but she is very early in flowering,

very free, not affected by cold, and altogether charming.

But as yet I think Dorothy Perkins is altogether the prettiest and most reliable of the ramblers, next to the original crimson, and I am making two new arches which I shall cover completely with the pretty Dorothy, and near her plant clumps of Delphinium azureum, and more white Lilies. Now a few words on

SHRUBS AND FLOWERING TREES, which are so necessary for the beauty of a garden. Some of the prettiest of these are a little delicate in a valley like ours, where we have to contend with late frosts, but only require protecting, or, at the most, matting up. I have often wondered why we do not go in more for Camellias. They are quite hardy if planted out of the reach of north and north-east winds and in a proper mixture of peat and fibrous loam; and we must also remember that, though they will stand more frost than a common Laurel, their main stems and larger branches are apt to be caught, so it is prudent to mat them up and throw some Fern or leaves over their roots. The following are good hardy sorts: Lady Hume's Blush, Double White, Duke of Devonshire, Floria, Imbricata, and Countess of Orkney; and there is a pretty little single red variety of which I do not know the name. Azalea mollis and *A. ponticum* will enjoy the same soil as prepared for the Camellias. Weigela rosea and alba, Ribes sanguineum (flowering Currant), Kerria japonica (Jew's Mallow), various Thorns (double and single), double Cherry, Crab Apples, and Almonds. Kalmias also for peaty soil, Guelder Rose, Hibiscus, Gum Cistus, Abelia rupestris (somewhat delicate for rock or high ground), Syringa (mock Orange Flower), and Laurustinus.

There are several varieties of Laburnum, a fact not generally known to the amateur, so if you are making a garden you should get the finest. Waterer's Laburnum, Parkesi,

and grandiflorum are the best, and put in a Scotch Laburnum to come in later. And when you buy Lilacs see they are not grafted on Privet—a fatal fault. Marie Legray is the best white, and for purple Louis van Houtte is reliable, and also Charles the Tenth (which forces white), and Dr. Lindley, and there are splendid new double sorts in both white and red-purple. Be cautious about Acers (Maples), as some are too delicate to be satisfactory. It is the damp cold of our winters that kills them, but they are charming things, and some of the hardiest are worth a trial. Bamboos are rapidly becoming popular, and some kinds are quite hardy. They, too, must be sheltered from north and north-east winds. I believe Bambusa Metake, Arundinaria anceps, and A. Simoni are some of the best, but there are a great many sold as hardy. Their graceful foliage is at its best when everything else is at its worst; but it seems unsatisfactory that as soon as the clumps have arrived at maturity they flower and die.

I have not included Rhododendrons because the ground must be entirely suitable, though I believe the only thing they absolutely dislike is chalk; but I do not think after you have seen them growing on the peat you will think it is worth the trouble to go in for any quantity. They are expensive plants, too, if you buy them as named seedlings, the only satisfactory plan, for the grafted ones constantly go back to the parent *ponticum*, and you find one fine day that where you thought you had a beautiful hybrid you have a common, worthless, wild Rhododendron.

This, of course, is not meant to be a comprehensive list of shrubs. I think we are apt to get into a groove in gardening, and certainly we are finding out every day that we can grow things in our English gardens that were never dreamt of fifty years ago. Hardy Heaths, too, are charming.

AUGUSTA DE LACY LACY.



IRIS OCHEOLEUCA IN THE GARDEN OF MR. JOHN HENSHAW, HARPENDEN.



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**POTTING PLANTS.**—Unless plants, and especially plants in rooms, are carefully and properly potted, they will never grow satisfactorily. Often plants that fail to thrive are suffering from bad potting, and no amount of cleaning leaves, top-dressing with fresh soil, or careful watering will do good while the essential



FLOWER-POT WITH DRAINAGE.

to the success of plant culture in pots, i.e., proper potting, is wanting. In the first place, it is important to have clean pots. They should be well scrubbed out and placed to dry before being used. If the pots are new, they should be soaked before use, otherwise they absorb a good deal of moisture when water is applied to the roots, and consequently the latter do not derive all the benefit they should do from it. Drainage is the next important item. This may consist of pieces of broken flower-pot, commonly called "crocks" or "potsherds," or even broken brick or small clinkers. The former are the best. They must be arranged in this way. Place a large, flat piece of crock over the hole at the bottom of the pot, so as to cover it effectually. Then cover the bottom of the pot, about half-an-inch or so deep, with rather smaller crocks, and upon them place smaller bits still. As a general guide, the depth of drainage in a pot of 6 inches diameter should be, say, three-quarters of an inch. This will answer for all ordinary plants. Place some rough turfy soil, from which the small particles have been shaken out, upon the crocks, so as to prevent the drainage becoming choked. Then upon the turfy soil place a certain amount of the compost prepared for potting the plant; how much will depend upon the size of the pot and of the plant. It should be as much as will bring the plant to be potted to its proper height in the new pot. This can readily be determined when we say that, again taking the 6-inch-diameter pot for an example, the surface-roots of the plant must be covered with about half an inch of soil, and above the soil surface there must be a space of rather more than half an inch left to hold water when this is given.

**Arabis.**—Whilst the common *Arabis albidula* will always be found in cottage gardens and in market gardens where it is propagated in immense quantities every autumn, it will long also find a place in ordinary gardens not only as an early border flower, but also for growing on rockwork. For flowering, the green form is much better than the silver-leaved or variegated variety, though that too grows strong and flowers freely. If needed for its leafage, then the flowers should be gathered. But for edgings and especially for its foliage none is better than the close, compact and almost rosette-like golden variegated *lucida variegata*, though sometimes called *mollis variegata*. This should not be allowed to bloom, indeed it does not bloom much. The plants should be lifted and be replanted every October both to have them very evenly placed and to increase the stock. The variety does not increase fast, but in a few years a very fine stock of plants may be secured. Once obtained it will be hard to lose if but ordinary care be taken to keep the plants safe.

**Useful Winter Flowering Plants.**—If we except the *Chrysanthemums*, there are no more useful flowering plants for the last three months of the year in the greenhouse than the *Silvias*. Amongst

the scarlet sorts, *S. splendens* and its varieties are the best, but equally fine is the blue-flowered *S. azurea*, several groups of which made a most delightful display in the conservatory at Kew. Unlike the dwarf varieties of *S. splendens*, which when well grown make handsome individual specimens, this species is of tall, somewhat sparse habit, and to obtain the best effect should be arranged in groups when in flower. It grows from 3 feet to 5 feet high, and has narrow, linear leaves 2 inches to 3 inches long, the flowers being borne on spikes 8 inches to 1 foot long. The lower whorls of flowers open first, and as they die away others higher up are developed, and by this means a continuation of bloom is kept up for many weeks. The main feature of the flower is its lower lip, which is half an inch wide and of a clear blue, relieved only by a patch of bluish-tinted white in the centre. It is a native of West North America, the best form in cultivation being that known as the variety *grandiflora*.

**Seeds to be Sown now Under Glass.**—*Ailsa Craig Onion*. This variety is very largely raised under glass in heat at this season, and, after being hardened by gradual exposure, planted out early in April in rows 1 foot apart, and 6 inches apart in the rows. At these distances very large bulbs are produced. The land, of course, should be well manured and deeply worked. Everyone who wants a heavy crop of fine Onions will in the future adopt this plan, and those who have no glass will sow in autumn a good keeping kind instead of the Tripoli varieties. If sown on well-drained land made firm, Onions which are usually sown in spring are hardy enough to stand the winter. Allotment holders and small farmers generally might give some attention to this crop, but it will not pay to grow a weedy, badly-cultivated kind.

**Cauliflowers, Brussels Sprouts, and Celery.**—Many have given up sowing Cauliflowers in August, sowing in heat under glass in January instead. The seeds are sown in boxes thinly, and placed on shelves near the glass in a warm house. When large enough to transplant they are placed singly in small pots and kept in heat in a light position till well established; they are hardened off, and planted out in a warm border in March or as soon as the weather is suitable. There are numbers of good early varieties. We generally sow *Snowball*, *Eclipse*, and *Autumn Giant*, so as to have a succession. Sowings are also made outside in March, or as soon as the outside conditions are favourable. *Brussels Sprouts* are sown under cooler conditions, so that the plants may be sturdy. For the same reason the plants when large enough are pricked off 6 inches apart outside. A box or two of a dwarf white Celery may be sown now, as it will be required for flavouring.

**Burbank's Crimson Winter Rhubarb.**—The raiser of this Rhubarb has won a great reputation in America, the sound of which has reached us here. California has a splendid soil and a genial climate, and the plants raised there might not suit us here, or they might fail altogether. But this Rhubarb is cheap enough now to give it a trial. I notice small roots are catalogued at 18s. per dozen. According to the description it is a perpetual bearer. The only time when it rests is just for a short time in summer. If it does not fall very far short of its description, it ought to pay the amateur to plant, as it only requires protection in severe weather, no forcing is required, and it keeps growing all the winter.

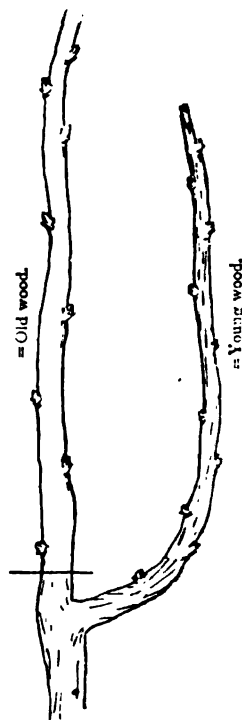
**Runner Beans for Forcing.**—A gardening friend last spring planted a row of Veitch's variety of Climbing French Beans on each side of a span-roofed house, and trained the plants up to the wires near the glass where Tomatoes had previously been growing, and the crop was a great success. This way of growing Beans ought to pay the market grower. From what I have seen I think there is more money in growing Climbing French Beans under glass, starting now in a warm house, than there is in Tomatoes, as in addition to the rows on each side of the house, circular clumps may be planted in the beds on each side, leaving just room enough to move between.

**Early Tomatoes.**—There are far too many varieties, or so-called varieties, of Tomatoes. We are trying Carter's *Sunrise*, which has been certificated by the Royal Horticultural Society. This new Tomato is very well spoken of, and all those who intend trying new varieties should note this. Other good early kinds are *Chemin Rouge*, *Comet*, *Earliest of All*, *Early Ruby*, and *Challenger*. For heavy cropping we had nothing equal to *Lawrenson's No. 3*. For house use a good

**Yellow Tomato** is desirable. To my mind there is more flavour in a good yellow Tomato than in most of the red kinds, but the market people will not have them. Those who would like to try a yellow variety will be satisfied with *Golden Nugget* and *Golden Queen*. Sow the seeds thinly in a temperature of 60° to 65°, and keep in a light position. Transplant into single pots as soon as large enough.

**The Black Currant.**—Many amateurs seem to think that the Black Currant requires the same treatment and culture as the Red and White ones do. This is altogether a mistaken

idea; the Black Currant requires quite different treatment. In the first place, it likes a deep, moist soil and a somewhat shaded position. It dislikes poor, light land, and does not grow there at all well unless the land is improved by mulching and manuring. When Black Currant cuttings are made the lowest buds must not be removed, as is done with those of the Red and White Currant cuttings, for the fruit is borne chiefly upon wood of the previous season's growth. The object, therefore, should be to introduce annually as many young shoots as possible, for they will bear fruit the following year. Suckers produce fruit equally as well as shoots that originate from the branches, and therefore must not be destroyed. At the



SHOWING HOW TO PRUNE THE BLACK CURRANT

annual winter pruning remove the old wood to make room for the new, by thus cutting the older shoot back to a point where a younger one originates the bush is kept full of good bearing wood. The accompanying illustration shows a shoot of the old wood which has borne fruit and the growth which was made, say, last summer, and will bear fruit next year. The old wood which has borne fruit must be cut out; in fact, the pruning of the Black Currant consists chiefly in thinning out the old wood, so that the young wood to bear fruit the following year may be well developed and matured.

*Some of the Small Birds*, bullfinches especially, delight in picking out the buds from Gooseberry and Currant bushes in spring, and, if not destroyed or driven away, soon inflict serious damage. Caterpillars appear during early summer and feed upon the leaves. Undoubtedly the most effective plan, although it occupies considerable time, is to pick off the pests by hand. It is an excellent plan to scatter lime among the branches of the bushes after rain, so that it adheres closely, and also spread some over the ground. When this is carried out occasionally throughout spring and summer caterpillars are rarely troublesome. Some caterpillars injure the interior of a shoot of a Currant bush, and decay results. If such happens, the shoot should be cut off and destroyed. Black fly also attacks the ends of the young growth. To kill this dip the latter in a strong solution of soft soap and warm water.

*The Blue Marguerite*.—No particular season of the year can be assigned for the blooming of this pretty blue-flowered composite, *Agathæa cœlestis*, upon which by some the name of the blue Marguerite is bestowed. Planted out of doors at the same time as the various bedding plants it will flower throughout the summer; whereas if struck in the spring or early summer, confined altogether in pots, and grown in the open air in a position fully exposed to the sun, it will if stopped freely during its earlier stages form neat little bushes, which by the end of the summer are bristling with flower-buds, and taken then into the greenhouse they will maintain a succession of bloom for a long time. The pretty blue flowers are very useful for cutting, their straight wiry stems being a great point in their favour.

*Orchid Growing for Beginners*.—*Imported Orchids*.—The facilities that now exist for sending packages to or from most quarters of the globe, combined with the fact that many Orchids are good travellers, often lead to their being sent home by friends abroad. A great deal of the success or otherwise attending them depends upon their treatment on arrival. Imported Orchids should immediately on receipt be carefully examined and any decaying parts be cut away, a sharp look-out being kept for insects, as they may prove troublesome later on. Then lay them on a stage in the house and give an occasional bedewing with the syringe till they become less shrivelled, after which no time should be lost in potting them according to the directions given in an earlier part of this series.

*The Orchids to Select*.—A selection of good cheap easily-grown kinds suitable for an intermediate temperature is herewith given. *Cattleya gaskelliana*, *gigas*, *Harrisonia*, *intermedia*, *labiata*, *Loddigesii*, *Mendelii*, *Mossia*, *Schroderæ*, and *Triana*. These need to be well supplied with water at all seasons. *Cœlogyne cristata*: When growth is completed this should have but little water for a time. *Cypripedium* (*Lady's Slipper*) *barbatum*, *Boxalli*, *calceum*, *Charlesworthii*, *crossianum*, *harrisonianum*, *insigne*, *lathamianum*, *lawrenceanum*, *lesanum*, *senanum*, *purpuratum*, *spicerianum*, and *venustum*. These must be watered regularly throughout the year. *Dendrobium Ainsworthii*, *chrysotoxum*, *crassinode*, *densiflorum*, *fimbriatum*, *jamesianum*,

*nobile*, *Pierardi*, *primulinum*, *thyrsiflorum*, and *wardianum*: As a rule these require liberal treatment; after that a period of rest by keeping fairly dry and placing at the cool end of the house. *Lælia cinnabarina*, *harpophylla*, *Ferrinii*, *purpurata*, and *tenebrosa* need the same treatment as *Cattleyas*. *Lycaste Skinneri*: The cool end of the house will suit it best. *Masdevallia veitchiana*: As cool as possible; water throughout the year. *Odontoglossum citrosimum*, *grande*, *Halli*, *harryanum*, *Insleyi*, *maculatum*, *pulchellum*, and *Rosaii*: Of these *O. citrosimum* must be kept dry when growth is complete till flowers appear. Others need to be kept moist throughout the year. The cool end of the house will suit these best. *Oncidium concolor*, *crispum*, *curtum*, *flexuosum*, *Forbesii*, *incurvum*, *ornithorhynchum*, *sarcodes*, *tigrinum*, and *varicosum* will thrive in any part of the house. Must be watered regularly. *Phaius grandifolius* needs some good loam mixed with the other compost. Do not let the soil become quite dry at any time. *Sobralia macrantha*: Same treatment as the preceding. *Sophranitis grandiflora*: Treat as *Cattleya*. *Thunia alba*: Liberal treatment when growing, after which keep dry and fairly cool till spring. *Trichopilia coccinea*, *fragrans*, *laxa*, and *suavis*: When growth is completed water carefully, but do not keep too dry. *Trichosma suavis*: As for *Cattleya*. *Vanda cœrulea* (the Blue Orchid): Pot in crocks and moss only. Keep always moist. *Zygopetalums crinitum* and *Mackayi*: Keep moist at all seasons.—T.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**H**ARDY FLOWER BORDERS.—The large number of kinds and varieties of hardy plants, some requiring full sun, others shade, render it possible to make borders of lovely flowers in any aspect. There is no best place for a hardy flower border, but rather a best place for the particular class of plants we wish to grow. Borders may be made facing north, south, east, or west; one can always find plants that will be happy in them. No doubt the place of all for effect is the bold border seen across grass, with a good background of shrubs. Many of the strong, tall-growing perennials look best from a distance. Borders for perennial plants must be thoroughly made at first. We have to bear in mind that whereas some plants thrive best when taken up, divided, and replanted annually, some every two years, others take two or three years to become established, and will flourish for many years if left undisturbed. Borders may be made of any width, but those from 20 feet to 30 feet are more effective than the narrow border, and admit of grouping plants in natural ways. In

**MAKING A BORDER**, dig out a trench 3 feet deep, 4 feet or 5 feet wide, to be made half full of refuse from the garden rubbish heap. The rougher the refuse the better. Old flower-stems, Asparagus, Bean, and Artichoke stalks are valuable, as, in addition to the manurial properties they contain, they also act as drainage. The soil from the next trench should be placed on top, proceeding in this way until the whole is trenched. Level the border, and dig again one spit and a-half deep, placing a quantity of good, well-rotted stable manure in the bottom of each trench. Again level the border, and surface it with 6 inches of old hot-bed leaf-mould and sand. Let it lie till March to settle. It should then be forked over twice, and it will be ready to receive the plants. Borders made in this way never become water-logged, nor do the plants suffer from drought in the summer.

**PROPAGATING**.—Obtain a stock of seed-boxes, pots, and pans, and prepare hot-beds with leaves

and stable litter to afford bottom-heat in addition to the pipes in the propagating house. Stock plants of *Heliotropes*, *Lobelias*, *Verbenas*, *Salvias*, and *Marguerites* should be encouraged to make growth for propagating. Sow seeds of *Begonia* in pans and plunge in a hot-bed, and cover with a sheet of glass till germination has taken place. *Antirrhinums* may also be sown now in boxes or pans, and placed in a warm house. Plants from seeds sown now will flower well in July and August. Possibly young plants from last July sowing may be killed by very sharp frosts or wet weather. The spring sowing will then be valuable. G. D. DAVIDSON.

*Westwick Gardens, Norwich.*

### FRUIT GARDEN.

**RASPBERRIES**.—If these were attended to by cutting away all old wood and the weakest shoots, to allow a free admission of air and light immediately after the fruiting period, the present is a suitable time to go over them again, leaving from six to eight of the strongest shoots to each stool; they should be neatly tied to their supports. Give the whole of the ground between the rows and plants a top-dressing of farmyard manure. Any suckers that may have been left for making fresh plantations can now be lifted and planted in their permanent quarters, which should have been previously trenched and liberally treated with manure.

**GOOSEBERRIES**.—The pruning of Gooseberries may now be carried out on all favourable occasions. Young bushes should be carefully handled, as their subsequent symmetry and fruitfulness depend very much on the manner in which they are pruned from their earliest stages. The young wood should be shortened back to the buds situated in the best position for producing young shoots in the desired direction, leaving rather more buds on the stronger shoots than on the weaker ones. Older bushes only require judicious thinning; remove entirely any branches with a downy tendency, or those crossing one another, and leave the young shoots wherever possible their full length. Gooseberries fruit much more freely on the young wood than is generally supposed, but to ensure this the young wood must not be shortened. Suckers should be removed by pulling them clean off the stem instead of cutting them.

**BLACK CURRANTS** only require dead wood removed and the branches well thinned out, removing as much old wood as possible to induce fresh shoots to spring from the base of the bush. Cuttings may be treated in the same way as recently advised for Gooseberries, except that the lower buds need not be suppressed. If the bushes are infested with the Currant-bud mite burn all affected growths, and carefully hand pick all swollen buds from the branches left; in addition remove the surface soil from under the bushes and burn this also, replacing it with fresh soil. If the pest has thoroughly established itself it may be well to destroy the whole plantation and replant with a fresh, clean stock in a different part of the garden, after burning every particle of the bushes and surface soil where they have been growing. The variety *Boekoop Giant* is said to be less liable to the attacks of this pest, but care should be taken to procure the young stock from a locality where the pest is unknown.

**EARLY FRAGERS**.—Succession houses should now be kept closed, but without raising the temperature very much for a week or two. See that the borders have been well supplied with water, and syringe the trees lightly on bright days. The cleaning and tying of later houses can now be pushed forward. If the proper thinning out of the shoots was attended to as soon as the fruits were all gathered very little pruning at this season will be required. Both the trees and the houses should be thoroughly washed with soap and warm water, and if the house is a lean-to the back wall can be freshly lime-washed.

If the trees are in a healthy and robust condition the border need only get attention in watering before starting, otherwise the surface of the border can be removed and a dressing of fresh soil with artificial manure added.

**MELONS.**—Melon seeds may now be sown to furnish plants for an early crop. The seeds should be sown singly in small pots, and placed in a temperature of from 70° to 75°. As soon as they are well up place them near the glass to prevent drawing, putting a stick and tie to each plant to support them until strong enough to be potted on into larger pots or into their fruiting quarters.

*Glamis Castle Gardens, Glamis. T. WILSON.*

### KITCHEN GARDEN.

**TRENCHING.**—In trenching it is of the utmost importance that the work should be done thoroughly. The quantity of manure dug in must be determined by the crop that it is intended to grow. Before commencing to trench one has to consider the nature of the ground, as to whether it is best to bring the bottom spit to the top or simply turn it over, which process is really double digging or bastard trenching. On new or reclaimed land it is best to adopt this latter system for the first year, using plenty of manure. Attention should always be paid to the level of the ground, so that there are no hollows. A good digger can tell at a glance how the surface is, and remedy any little irregularity as he goes along. During a spell of frosty weather see that the manure is spread about to prevent the ground from becoming too hard. Neither frozen masses of soil nor snow should on any account be dug into the ground, as they are so long in thawing, and for a considerable time afterwards the soil is in a cold, saturated condition, which is most unfavourable to vegetation.

**AUTUMN-SOWN PEAS** require attention. When the soil is dry and workable draw some up to those above ground. Staking may be done, putting the sticks in rather close, as much for protection now as for support later. If very early Peas are required they should be sown without delay. If grown in pots a variety of about 3 feet in height should be selected. Clean pots of 9 inches or 10 inches diameter should be used. Well drain, and three parts fill with a mixture of loam two parts, leaf-mould or old Mushroom-bed material one part, and a little road grit, well mixed together. Place the pots in any light and airy structure where a night temperature of about 50° can be maintained. Water the pots if the soil is dry, then sow the seeds thinly, and cover with the compost about 1 inch. Where space allows Peas can be successfully cultivated in cold frames or pits. If the soil is fairly good manure well decayed will be sufficient; but if poor, loam and road grit should be added and dug in, as well as the manure. After sowing keep the pits closed till the Peas appear through the soil, covering at night if the weather is severe. Varieties of a dwarf-growing nature are best suited for this style of culture.

**FRENCH BEANS.**—Successional sowings of French Beans should be attended to, using pots of 8 inches diameter or narrow boxes 2 feet long, 10 inches or 12 inches wide at the top, narrowing to about 8 inches at the bottom, and 10 inches deep, with holes for water to run away, using the same compost as recommended for the Peas. Ne Plus Ultra is a good reliable variety, but Osborn's and Veitch's early forcing Beans are dwarfier and earlier.

**LETTUCE AND CAULIFLOWER.**—Sowings of Lettuce and forcing Cauliflower should now be made, using seed boxes filled with a light compost, and placed in a temperature of about 50° to 55° at night. Cover the boxes to keep them dark until the seed has germinated.

**POTATOES.**—Plant Potatoes in pots of not less than 10 inches diameter, planting three or four tubers to a pot, using a light compost. Well drain, and three parts fill the pots, allowing

room for earthing up when necessary. Sharpe's Victor and Sutton's May Queen are good varieties, but I find Sharpe's Victor the better for pot work. The end of an early vinery is a good place for both French Beans and Potatoes to start, removing the Potatoes to a more airy situation as the tops show through the soil.

**SPINACH.**—Keep up successions of Spinach, placing the roots in the Mushroom house or any other dark place where a temperature of 55° to 60° can be maintained. Protect Celery from heavy rains. See that Globe Artichokes are well protected from frost. Seed drawers should be cleaned out in readiness for the arrival of the new seeds. Unless it is really necessary I do not recommend using old seed.

*Bryanston Gardens, Bradford. J. JACQUES.*

### ORCHIDS.

**CALANTHES.**—The deciduous section of Calanthes, such as Veitchii, V. alba, Vestita varieties, Bryan, Regnier, &c., are now in flower or bud, and water should be given sparingly until the flowering season is past, when water should be entirely withheld. Calanthes look well arranged in masses between Ferns or other foliage plants at the warmest end of a conservatory or intermediate house, but care should be taken not to place the plants upon a wet stage, as the compost in which they are grown will probably get too wet and cause the pseudo-bulbs to rot. This is easily avoided by placing a receptacle, such as a pot, underneath them. After flowering they take up less room if turned out of the pots and the soil shaken off them, and then placed in boxes of dry sand on a shelf in the warm house, where they may remain until new growth commences in the spring. One of the prettiest Orchids now in flower is Masdevallia tovarensis, with its snow-white flowers, which appear just above the leaves; these are useful for cutting purposes at this time of the year. If the flowers are needed it is advisable to take them off singly and wire them, leaving the old spikes, which will flower again next year. A light position at the coolest end of the intermediate house is a good place to grow them, and water should be given freely when the compost becomes dry.

**SOPHRONITIS GRANDIFLORA** is a charming little cool house subject now in flower. When the plants are well cultivated upwards of twenty blooms are obtained on each plant, and to see a dozen or more well-flowered plants at the same time is very pleasing. Now that they are growing freely a light position should be given them, and the roots should be kept in a moist condition. Small scale often attack them, especially if the plants are not in a healthy condition, so it is necessary to examine them occasionally for the purpose of cleaning them.

**ODONTOGLOSSUMS.**—Many plants of O. crispum are now pushing their flower-spikes, and no weakly plant should be allowed to flower unless newly imported and one wishes to form an opinion of the variety. Plants that have had their flower-spikes pinched out and have finished their growth should be given a rest by keeping them moderately dry at the root; others growing freely should be well watered until the growth is matured. Keep a buoyant atmosphere in the house at all times, and if the bottom ventilators are so placed that the air passes the pipes before reaching the plants, it is advisable to admit a little at all times, and the top ones should be used with discretion during mild weather, taking care to avoid draughts. O. Pescatorei that are completing growth should be given less water at the root than O. crispum, as they are liable to make new growth instead of producing flower-spikes. O. cirrhosum and the beautiful hybrids Harryano-crispum, O. ardentissimum, Rolfei, &c., require much the same treatment as the crispums. Plenty of peat, loam, Polypodium fibre, and sphagnum moss should be prepared now for future use.

*Chardwar, Bourton-on-the-Water. W. H. PAGE.*

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**CHRYSANTHEMUMS FOR POT CULTURE (E. J.).** Much will depend on the varieties you grow. Strong cuttings early in the year, struck in a cool frame where they do not get drawn up, make the best plants. The majority of sorts may be stopped about the end of April. Firm potting in good compost will secure short, hard shoots. The plants do best when plunged in the ground; it will do no harm for a few roots to get through the pots, but if they show signs of growing too vigorously turn them round to break the roots off. Growing the plants from one stem for the market requires considerable skill. You suggest saucers for the pots to stand in, but market growers never use them.

**STOPPING AND TIMING CHRYSANTHEMUMS FOR EXHIBITION (T. C., North Manchester).**—For the benefit of other readers of THE GARDEN we give the date for stopping the plants in London, at the same time stating that an allowance of rather less than a week should be made for growers in Manchester, and ten days to a fortnight in the case of Scotch growers—that is to say, growers in the Midlands and the North should begin stopping earlier than growers in London and the South, and to the extent just laid down. The varieties in your list are all Japanese, with three exceptions, and should be treated as follows:

#### JAPANESE.

Name.	When to Stop the Plants.	Which Buds to Retain.
Mrs. T. Dalton	May 21	1st crown
Mrs. Geo. Milleham	Natural break	"
Mrs. Barklay	1st week in April	2nd crown
Mrs. A. H. Lee	3rd week in March	"
Mrs. J. Dunn	"	"
Mrs. Swinburne	April 15	1st crown
F. S. Vallis	Natural break	"
Matthew Smith	1st week in April	2nd crown
Mme. Paolo Radelli	1st week in May	1st crown
Mme. Waldeck Rousseau	Last week in May	"
W. R. Church	End of March	2nd crown
Guy Hamilton	March 15	"
Henry Perkins	1st week in April	"
Lady Conyers	Late March	"
General Hutton	3rd week in May	1st crown
W. Duckham	April 15	2nd crown
Valerie Greenham	Last week in March	"
Simplicity	"	"
Mrs. Eric Crossley	Natural break	1st crown
Mrs. C. F. Boosey	"	"
Charles Hobbs	3rd week in March	2nd crown
Mrs. E. C. Pulling	April 15	"
F. A. Cobbold	1st week in April	"
J. H. Silbury	April 15	"
Mrs. J. Lewis	1st week in April	"

#### INCURVED.

Charles Curtis	Last week in March	2nd crown
Lady Isabel	1st week in April	"
Souvenir de Wm. Criban	"	"

The above dates are given on the assumption that the cuttings are already inserted, or that it is proposed to insert them forthwith. This is important, especially in the case of those where a "natural break" is recommended.

**FLOWER BORDER (C. F. Yorke).**—There is not the least reason why you may not make a good and showy border. The presence of the two sets of Roses will only be a detriment so far as you may not with impunity plant anything and everything in their immediate vicinity. You had better confine yourself to early flowering bulbs, such as Fritillarias, Narcissus, Tulips, and other things among the standard Roses, with Carnations, Tufted Pansies, &c., among the bush Roses. To follow the bulbs, Montbretias and the autumn-flowering Lilies could be planted. No tall flowering plant should be flowering among the Roses in Rose time, but before and after. You may now plant Anemones, Ranunculus, Gladioli, Montbretias, &c., these with Carnations, Tufted Pansies, and some annuals would make quite a display in 1906. The other part of the border could be devoted to herbaceous plants, and these would also flower in the year of planting.

**T. W. W.**—*Arabis albidula* flore-pleno would suit your purpose well. It grows rapidly, and soon covers a large surface, while in spring it is a mass of flower.

**X. Y. Z.**—Sow your Sweet Peas in March. If you have not much room in the borders, sow them in tubs. If the tubs are properly drained and filled with rich soil the Sweet Peas will do splendidly. They will need a great deal of water during the summer months.

**Curious.**—The new *Nigella Miss Jekyll* does best if sown in the autumn, according to Messrs. Sutton and Sons, who have had ample opportunities of observing this plant. It is perfectly hardy, and will therefore pass through the winter without taking any harm. Autumn-sown plants are sturdier and stronger than those sown in the spring.

**C. F. Yorke.**—If the patches are very large or numerous from the removal of the Daisies, you had better at once patch with good turf, to be followed by a top-dressing of very short manure, wood ashes, and loam in about equal parts, passing this through a sieve of three-quarter-inch mesh. If the gaps are not of a size to warrant the use of turf, the better way will be to apply the top-dressing at once, and in April obtain good lawn grass from a reliable source, thickly sowing the same over the bare spots, and, finally, give a further dressing of finely-sifted wood ashes over all. When the young grass is well up, a slight dressing of sulphate of ammonia could be given at the rate of 1 lb. to a barrowful of finely-sifted loam or wood ashes. The soil and the manure should be thoroughly mixed, and lightly sown over the lawn.

## TREES AND SHRUBS.

**THE DOUGLAS FIR (H. H. Wyndham).**—Among the Californian trees which are suitable for our country, perhaps the most tried so far is the Douglas Fir, but we cannot see that the trials made up to now in England confirm the hopes of it, although we do see it thriving well occasionally here and there, especially in open, free soils in the West Country, in Ireland, and in Norfolk. The Menzies' Spruce or Fir, however, sometimes called a variety of the Douglas, is, we think, at least as well worthy of planting as the Douglas. We have seen some plantations of it on our cold Eastern Coast handsome in colour, tall, and rapid in growth, with fine effect. The fact of its having been introduced into the State forests of Prussia is also a point worth noting. It should be tried in light and open soils.

**CLIMBERS ON TREES (Causeway).**—The difficulty of displaying the features of the climber is found in the poverty of the soil near the tree, together with the shade given by the tree itself. Fresh soil, it is true, can be given for planting the climber in, and this further stimulated by soakings of liquid manure, but even then climbers sometimes refuse to grow at all. Deciduous trees only are suited for this mode of planting, and those not having a heavy or dense head of foliage. The *Acacias*, *Laburnums*, and such-like may in many cases be utilised in producing very pretty effects in the near or distant landscape. The common form of the Virginian Creeper is better for this purpose than the neat and small-leaved *Ampelopsis Veitchii*, because its loose sprays hanging from overhead branches bring its colour and graceful aspect into greater prominence. Much care is needed on the part of those having to do the mowing of the grass near trees so planted, otherwise the labour extending over several years may be undone in a moment.

Clematises are very pretty subjects for trailing over large bushes or low standard trees; so are the Honeysuckle and Wistaria.

**T. J. W.**—The best plan to adopt with your Oak is to cut the branches away at the first living branch below the dead portions, at the same time coating all the wounds over with tar. Do not remove all the young growth away from the trunk; thin it out and leave a number of the strongest and best-placed branches. These will assist the tree to recover.

**M. P. Smythe.**—The Cornish Heath is one of the latest flowering of all the hardy Heaths, and is still nicely in bloom after the colour has faded from the numerous varieties of the common Ling (*Calluna vulgaris*). It is one of the most desirable of our native or European Heaths, being quite hardy, growing freely in any soil that is devoid of lime, and flowering with unfailing regularity from August to the end of autumn. Its dark green leaves are larger than those of most *Ericas*, and the flowers, which are produced in the closely-set leaf axils, form in the mass, large, erect, tapering racemes, which give a most graceful aspect to the plant. In the ordinary form the flowers are of a pale reddish purple colour, but there are besides a pretty variety with white flowers called *alba*, and another with more closely-packed racemes called *grandiflora*.

## ROSE GARDEN.

**ROSES AS LARGE BUSHES (H. R. Rose).**—Many Roses will make large bushes if planted in good soil, well looked after, and lightly pruned. Among those that specially lend themselves to forming large bushes are *Claire Jacquier*, *Dawson Rose*, *Reine Olga de Wurtemberg*, *Ulrich Brunner*, *Waltham Climber No. 1*, *Magna Charta*, *Mme. Plantier*, *Gloire de Dijon*, *Flora*, *Fellenberg*, *Conrad F. Meyer*, *Rose Blanc double de Courbet*, *rugosa rosea*, and *Mme. Alfred Carrière*.

**BUTTONHOLE ROSES (M. G. G.).**—All the following produce neat flowers suitable for making buttonholes. The large show Tea Roses are now largely worn, but you will find those mentioned below the most serviceable: *A. K. Williams*, *W. A. Richardson*, *L'Idéal*, *Gustave Régis*, *Papa Gontier*, *Souv. de Catherine Guillot*, *Killarney*, *Sunrise*, *Mme. Abel Chatenay*, *Souvenir du Président Carnot*, common Moss, *Blanche Moreau*, *Victor Hugo*, *Bouquet d'Or*, *Anna Olivier*, *Mme. Faloot*, *Mme. Hoate*, *Mme. P. Perny*, and *Marie van Houtte*.

**TEA ROSES IN THE HIGHLANDS (A. A.).**—We do not doubt your ability to grow Tea Roses in the Highland glen you refer to, seeing that the soil is good and that you are well sheltered from the east. There used to be some excellent Roses produced around Perth, and no doubt there are still. As a winter protection to bush plants nothing can excel soil. If you have some nice sifted soil to put around each plant to a depth of about 4 inches to 6 inches you will find the basal eyes as sound in the spring as you could wish. Keep the plants thus moulded up until about April, or until you prune the plants, which would be about the middle of that month. Should the winter prove a very severe one Bracken Fern may with advantage be stuck among the branches of the plants, but this should always be removed at mild intervals. As regards *Crimson Rambler* covering a 7-foot arch the first season, this could be done by procuring good plants, pot grown, having that length of growth. We should prefer plants that had been potted up from the open ground and that had been established in pots for one year. Such plants need not be cut back, and they will make a show at once.

**T. W. J.**—Good climbing Roses for the greenhouse are *Celine Forestier*, *Climbing Niphetos*, *Maréchal Niel*, *Fortune's Yellow*, *Réve d'Or*, and *Solfaterra*.

**S. T. E.**—Pegging down is an excellent method of treating vigorous growing Roses. Plant them from 2 feet 6 inches to 3 feet apart, prune hard the first year, then the following year tie down the long growths parallel to the ground. Flowers will appear along the shoots. Later on young growths start up from the base, and if allowed to grow upright will bloom about a month later than the pegged down shoots. When the long ones appear worn out, cut them clean away and peg down young ones instead, but they will usually last two or three years. Beds of Roses so treated make a fine feature on a lawn, such kinds as *W. A. Richardson*, *Alister Stella Gray*, *Gustave Régis*, and others blooming most profusely. Last summer we saw a bed of *Rose Cléo* treated in this way, and the whole bed was simply bristling with buds and flowers. *Grace Darling*, too, is amenable to this treatment.

## ORCHIDS.

**DENDROBIUM THYSIFLORUM (A. J. Downe).**—It is one of the most common, yet one of the best and most useful, of the evergreen kinds, easily grown and very free blooming. The ground colour of the sepals and petals varies considerably, embracing pure white and various tints of flesh and rose colour. The lip is the same in all cases—a deep golden yellow that enhances the beauty of both the pure white and rosy tinted segments. It is a free-rooting and vigorous-growing species, and may with advantage be given fairly wide pots, the drainage being ample, never less than half their depth. The compost should also be used in a rough state, the peat being of the best quality and mixed with half its bulk of clean, fresh sphagnum. Newly-imported plants of this Orchid often arrive in such a condition, that to anyone unacquainted with the influence of a warm, moist house they would not seem of any value—not a green leaf to be seen on them, and the pseudo-bulbs shrunk and shrivelled out of all shape.

**X. Y. Z.**—*Coelogyne barbata* is a most useful winter-flowering kind, first discovered by Griffith many years ago in Bhotan, and afterwards by the late Thomas Lobb on the Khaysa Hills at 5,000 feet to 6,000 feet altitude. Under cultivation it succeeds well with somewhat cool treatment, and will make a nice subject for either basket or pot, provided the drainage is well seen to. During active growth it enjoys a fair supply of water at its roots, but much less after its growths are matured. The flowers are produced upon erect racemes, and will continue in perfection for a long period provided they are kept free from damp.

**H. W. W.**—*Dendrobium Macartheae* is, unfortunately, rather difficult to grow. Newly-imported plants, if they have not suffered too much in transit, are superior to those that have been in cultivation for any length of time, and when procurable should be obtained. They will usually start away vigorously at once, and should, in consequence, be placed in pots or baskets, using a compost that will not require renewing for some time. The trouble with *Dendrobium Macartheae*, as with so many other difficult subjects, is to maintain a constant supply of fresh air without at the same time destroying the balance of the temperature as to heat and moisture. What it seems to require is a house dripping with moisture from February till November, strong heat, and an ever-changing atmosphere.

## THE GREENHOUSE.

**BEGONIA BULBS (L. C.).**—The Begonia tubers, now quite dormant, should be laid in shallow boxes and just covered with fine dry soil, not exactly parched up, but with little moisture in it. They may be kept in any place that is not too damp, or the temperature too high, as the main object is to give them a perfect rest, for instance, on the stage in the greenhouse where a temperature of 45° to 55° is maintained. The commencement of the month of March is a good time to pot the tubers, which are best started in comparatively small pots, say, about 4 inches in diameter, and shifted on when required. A suitable compost is equal parts of good loam and well-decayed leaf-mould, with some silver sand. After potting, the soil must be kept slightly moist till the new growth appears, when the water supply should be increased. The plants will then grow quickly, and especial care must be taken not to allow them to become pot-bound before shifting them into their flowering pots. Mix a little dry cow manure with the soil. As the roots take possession of their new quarters and the plants develop, liquid manure of some kind is very beneficial. The best is made from cow or sheep droppings, and it is greatly improved by a mixture of soot water (clear, of course). The young plants are sometimes, but not often, attacked by aphides or green fly. Vapourising with the XL All Vaporiser will, however, effectually destroy them.

**J. E. Brough.**—Next to the *Poinsettia*, *Euphorbia jacquiniiflora* is one of the brightest subjects we have for this season of the year. It is more difficult to manage than the *Poinsettia*, requiring careful treatment throughout. The very slender roots are liable to be killed, either through drought or excess of moisture. It is of the first importance to have strong cuttings to start with, and this can only be done by taking care of the old plants after the flowers have been cut; the plants are then rather shabby-looking and often get relegated to some obscure corner,



where they are apt to be neglected. A very few plants kept in good condition will give a lot of cuttings. Unlike the Poinsettias, the earlier in the year these can be taken the better. There is little difficulty in rooting the cuttings.

### FRUIT GARDEN.

**ABOUT VINES (E. S.).**—The trellis in your vineyard should be about 18 inches below the roof; 8 inches is much too close. If you have lowered it to more than a foot away from the glass, no doubt that will answer the purpose; if you have the trellis any closer than from 15 inches to 18 inches the leaves are almost bound to get scorched. The month of January is the best time to insert vine eyes. You can quite easily keep the shoots which were out off the vines at pruning time by inserting them in a cool, moist medium. It is even preferable to cut the shoots from the vines before Christmas, tie them in bundles with the ends inserted in the soil, and place them in a cold position until wanted. Better results are obtained from shoots thus retarded than from those out from the vine just when required, and when the sap is beginning to rise. Now is an excellent time to cut off the shoots. In January you can put in the eyes.

**DISEASED VINE ROOTS (S. J. S.).**—We feel fully justified in inferring from the diseased appearance of the Vine roots sent that the border when made must have had mixed with it considerable woody matter, and that in the process of decay fungoid growth has developed. This would be, of course, very injurious to the Vines. Even if such were not the case there might have been included strong nitrogenous matter, such as blood manure, strong animal manures, or other ingredients which in time decaying have developed sourness and fungus. We strongly advise you to remove all the soil down to the roots at once, lifting and tying the roots up in mats, just keeping them damp, then adding to the lower soil a good proportion of wood ashes and old lime refuse, with some soot, well mixing it and making it fairly firm, then relaying the roots and surfacing with a similar mixture, adding also 1 pint of bone-dust to each barrow-load of soil. Make the surface fairly firm by treading, then give a gentle watering to settle the soil well down, and add a mulch of long stable manure, just a thin coating, to help keep the soil moist. An occasional syringing of the Vines to help keep the wood or bark a little moist also would be helpful. The wood ashes, lime refuse, and soot should help to sweeten the soil and keep it free from fungus. We do not clearly understand whether the Vine border is inside or outside, but if outside it would be wise to place some straw-thatched hurdles over the newly-planted roots during very hard weather or when heavy rains or snowfalls take place. If you refer to the planting out of Geraniums on the border for the summer, we should regard that as a practice to be strongly deprecated. If some flowers be needful sow such as Mignonette. Still, the border should not be so planted if avoidable, but rather give it a thicker mulch of long manure during hot, dry weather.

**S. J. Stone.**—Muscat of Alexandria can be grown in a mixed house and with late sorts, but you cannot expect such good results as when grown in a house where the best treatment can be given. The Muscat requires more warmth for setting the flowers, and of course an inside border. Plant the Muscat at the warmest end, and ventilate carefully when in bloom. The Muscat will hang late, so that the treatment given to the other late Grapes will be suitable. We do not think the old stools of Geraniums will do much harm if you keep them on the dry side when the Vines are at rest. You should start your Vines late, say, late in March or early in April.

**E. E.**—The best plan to adopt under the circumstances stated is to reduce the number of young shoots now growing on each branch to one or two by disbudding—that is to say, to the same number as would have been left had the tree been pruned in the usual way while dormant. This will prevent bleeding and answer the same purpose as if the Vine had been pruned in the proper season. That part of the branch disbudded must not be cut off now, but left intact until the Vine is in full leaf, when it may be cut off and no bleeding will take place. As long as the weather remains mild the young growths on the Vine will take no harm without fire-heat being applied, but in frosty weather, unless you apply a little fire-heat during night time, you will most likely lose your next

year's crop of Grapes and possibly irretrievably damage your Vine. All the artificial heat necessary in frosty weather will be to maintain a minimum temperature of 40° Fahr.

**J. C.**—Rust on Grapes is a fungoid growth, and the conditions favourable to its attack on the Vine are caused by injudicious ventilation in cold weather. It is also brought about by too low a temperature at night and early morning. Do not give too much front air on cold mornings or days, using the top ventilators more freely instead. During the season of growth have a little fire-heat all night, leaving on a chink of back air. The best way to kill rust is to burn sulphur on the hot-water pipes. The sulphur should be mixed with warm water to the consistency of paint, then smear the pipes with it. This should be done on two consecutive evenings. The pipes should be made so hot that one can scarcely bear to place one's hands on. The Vines should be dressed with Gishurst's Compound when at rest in winter. This will kill any spores there may be left.

### KITCHEN GARDEN.

**ROAD SCRAPINGS FOR HEAVY SOIL (M. H. Weston).**—The above are invaluable for heavy soils, and often can be had in large quantities at a small cost. We recently saw a garden where all the top soil had been entirely ruined by a large mass of clay having been carted on. To remove this was out of the question, but the best results have been secured by giving a liberal dressing of town sweepings, which are obtained in boat-loads at merely the cost of carriage. Many can utilise road scrapings and get similar results. These cost little or nothing, and are far superior to masses of animal manures for clayey land. It may be impossible to get large quantities at one time, but it is a good plan to treat a portion of the garden yearly, doing what is done thoroughly. In time such soil will be in excellent condition for most crops. It is an easy matter to store road scrapings during the summer, or at a time they cannot be placed on the land, using them at this season.

**DISEASED PARSNIPS (M. F. S.).**—From the appearance of the Parsnip sent your land is either very wet and badly drained or the soil is heavy and infested with worms. You give no particulars to work upon, such as soil, position, or when the seed was sown, but neither the seed nor the variety is at fault, as Holborn Marrow is one of the best Parsnips grown. You may have sown the seed when the soil was in a soddened state; that would affect the growth, but this can be easily altered in the future by either draining the land or adding such materials as burnt refuse, old mortar rubble, coarse sand or road scrapings, and leaf-soil, and thoroughly exposing the land for some time before sowing by turning it up roughly now and not sowing the seed quite so early, but at a time the soil is fairly dry and breaks up freely. Many who only require Parsnips for home supplies sow too early. April would in such soils be better than February, as extra large roots, except for exhibition, are not required; indeed, those of medium size are the best in quality. To get rid of worms and slugs use lime freely when digging the land.

**THE BEST PEAS (F. J. J.).**—The best Peas for the purpose named are as follows: For early supplies, May Queen, Sutton's Early Giant, Sutton's Ideal, and to follow on Stratagem, Thos. Laxton, Duke of Albany, and Veitch's Perfection, or Telephone if your soil is at all shallow. For later supplies, Veitch's Autocrat, Sutton's Eureka, Windsor Castle, Carter's Michaelmas, and Late Queen. If you require very early Peas, and mere size of pod does not count, but rather want productiveness and good quality, you would do well to grow a good lot of Veitch's Chelsea Gem, one of the best early Peas grown, not so large as those given above for first crop, but equal, if not superior, in yield of pod and of excellent quality. Another very valuable early Pea is Sutton's Bountiful, a green Pea and a grand cropper, not a marrow, but of good quality. For crop it cannot be beaten, and is earlier than the Marrows. This may be sown where the Marrows would fail if sown too early. If a dwarf Pea is desired, we mean as plants not more than 1 foot high, Carter's Eight Weeks or Sutton's King of the Dwarfs are excellent early varieties, and grand for frame or pot work.

**J. H. T.**—The best Rhubarb would be Hawkes' Champagne for early supplies, if a largestalk is required. This is grown for market, and to follow this Myatt's Victoria is a fine Rhubarb, large and productive, rich crimson in colour, but later than Champagne. A still larger stalk is Stott's Monarch, which is a very good variety. The above are the best with regard to size. The best time to plant is just before the plants begin to grow, say, December to February. We prefer the last-named date for the large later kinds.

### MISCELLANEOUS.

**VARIOUS QUESTIONS (China Blue).**—Do not replace the turf around the stems of the conifers after planting; you may leave the soil bare and loose if it is good, but if very poor a mulch of manure would be of great advantage. The probable cause of your Dracena leaves falling is the recent repotting. No doubt some of the roots were damaged, and this would cause the leaves to fall. After repotting little water is required for some time, until the roots have taken hold of the new soil. It is very important to see that the plant was thoroughly watered some hours before being repotted. Plant your Lilies of the Valley out of doors after forcing. Do not force them again.

**FIELD MICE (Loughurst).**—There are two kinds of field mice, the short-tailed field mouse or vole and the long-tailed field mouse. The former make runs along the grass, and are best caught by making pitfalls in the tracks, at least 1 foot deep, about 6 inches wide at the mouth, and much wider at the bottom. Into these the mice fall and cannot get out. Inverted flower-pots sunk in the ground are sometimes used. You may also place traps in their runs, and traps may be used to catch the long-tailed field mouse. If you can use poison, one of the best is phosphorus, made up with lard and flour. Scatter this about the bulb beds if safe from fowls, animals, or children. It is said that mice will not dig through a covering of coal ashes if placed on the ground surface 1 inch thick.

**ZINC-LINED WATER TANKS (E. A. T.).**—There are very many thousands of these tanks in use in gardens, and had such been the case we should have heard of the fact or have observed it in our own experience. We certainly have not done so. At the same time should the water used be strongly impregnated with lime and the tank not frequently emptied, we should not like to say that there is no danger of the water being contaminated by the presence of lead from the zinc. But if the tank is frequently emptied the danger of contamination from this source would be so infinitesimal as not to count. If you have other sources of supply near at hand try a change of water for a month or so and note the result. Rain water, no doubt, is the best to use for watering plants with when it can be obtained in an unadulterated condition; but the atmosphere of large towns is so impregnated with sulphur and other impurities that it is unsafe to use it for watering plants when collected from the roofs of houses, &c. We presume that your greenhouse tank is not at any time supplied from this source.

**TECHNICAL TERMS EXPLAINED (T. Comber).**—The Manetti stock is a variety of Rose employed by Rose growers to bud the cultivated sorts upon. In the summer various sorts of Roses are budded upon the stems of the Manetti stock, as near to the root as possible. It is usually employed for Hybrid Perpetuals. A Paradise stock is a variety of Apple that produces fibrous roots near the surface. It is also slow in growth. If Apples are budded on this stock, the Apple grows faster than the stock, and consequently, owing to the slower growth of the latter, growth of the tree is arrested, and fruit buds are produced instead. Amateurs who desire Apple trees to fruit quickly plant trees upon the Paradise stock. The French Paradise or Doucin stock is merely a selected form. A Crab stock is merely a seedling Crab Apple. Being raised from seed it differs from the Paradise in that its roots strike straight down as most seedling trees do. Crab stocks are used principally for standard Apples where one desires a tree to grow rapidly. Quince stocks are raised from seeds or layers. They are allied to the Pear, and used to make the trees bear quickly in the same manner as the Paradise is used for Apples. A maiden tree is a plant one year old. When an Apple stock is budded the next season the stock is cut away close to the inserted bud. The eye or bud grows out, and usually makes one long growth about 4 feet in length. This plant by the end of the year is termed a "maiden" tree.

**NAMES OF PLANTS.—J. G. G.**—1, *Ostrum* (*Habrothamnus*) *elegans*; 2, *Begonia* *Turford* Hall; 3, *Cotone* *ignea*.—*Harold Walker*.—1, *Hamamelis* *arborescens*; 2, *Forysthia* *suspensa*; 3, *Chimonanthus* *fragnans*; 4, *Lonicera* *Standishii*.—*Wexham*.—A variety of *Cypripedium* *lawsonianum*, but cannot say which one without further particulars.—*Gardener*.—*Jacobinia* *chrysostephana*.—*Mrs. Van Pole*. 1, *Cypripedium* *insigne* *Harefield* Hall; 2, *C. l.* *Agathae*; 3, *C. l.* *montanum*; 4, *C. l.* *Portia*.—*J. G. Heston*.—*Helio-* *phila* *scandens*. The pink *Freesia* is *Freesia* *Armstrongii*; the blue flower is *Eranthemum* *pulegiellum*. We cannot undertake to name varieties of *Codium* (*Croton*). Please always number the specimens.

**NAMES OF FRUIT.—J. Tizard, Wareham.**—The largest fruit is *Josephine* de *Malines*, the smallest round fruit is *Marie* *Gutis*.—*H. Wiseman*.—1, Pear *Doyenné* d'Alençon; 2, *Knight's* *Monarch*; 3, *Winter* *Nella*.—*W. J. Heath*.—Apple *Wellington*, or *Dumelow's* *Seedling*.—*Granham*.—1, Apple *Winter* *Queening*; 2, Pear *Doyenné* d'Alençon; 3, Apple *Newton* *Wonder*; 4, *Bismarck*.—*Wigton-Aire*.—Apple *Waltham* *Abbey* *Seedling*.—*T. Pearson*.—1, Pear *Josephine* de *Malines*; 2, *Beurré* *Rance*; 3, not recognized. —*J. W. Deale*.—1, Pear *Duchesse* de *Bordeaux*; 2, *Olivier* des *Sarres*; 3, *Nouvelle* *Fulvie*; 4, *Easter* *Beurré*.



## LEGAL POINTS.

**LOCKING GATE (T. L.).**—Unless your landlord is entitled to a right of way through the gate he cannot object to your locking it.

**STRAYING ANIMALS (F. D. C.).**—The fine for permitting animals to stray upon a highway is imposed by the Highway Act, 1864, which applies to all parts of England.

**NOTICE TO SERVANT (W. H.).**—If a hind is engaged for a year he must be retained for that period; but if he is engaged by the week, only a week's notice is necessary. An under-gardener can usually be dismissed at a week's notice, but a head-gardener, in the absence of a special stipulation to the contrary, would be entitled to a month's notice in the same way as any other domestic servant. When deciding what notice should be given to a hind or servant in husbandry, regard must be had to the custom in the neighbourhood as to determining engagements of this description.

**STOPPING UP HIGHWAY (J. F. W.).**—The saying "once a highway, always a highway" applies to all public rights of way. When a way has once been dedicated to the use of the public the public rights cannot be lost or extinguished, except by means of a special Act of Parliament or a justice's order made in pursuance of the Highways Acts. The justices may make an order to stop up or divert a highway. The proceedings being complicated the services of a solicitor are usually required for the purpose of obtaining an order, but the expense involved is in most cases not very considerable. In London certain courts and alleys may be closed under the provisions of one of the Metropolitan Paving Acts, known as Michael Angelo Taylor's Act. The public may acquire a right of way by express dedication by the owner or by user. If the owner desires to prevent the public from obtaining a right of way he must show his intention in an unmistakable manner. This may be done by constructing a gate or barrier and keeping it closed on several occasions during the year. The general presumption of law is that the soil of the road belongs to the proprietors of the land on either side, subject to the public right of passage.

**INCOME TAX (N. O.).**—Schedule "B" comprises the tax on the benefit derived from the occupation of land for agricultural purposes. Where the land is let the tax is payable by the farmer. Where the owner retains the land in his possession the tax is payable by him. The annual value is the basis of assessment. The tax is payable on one-third only of such annual value. The assessments are made annually, but the valuations are usually allowed to stand for five years. A farmer may elect to be assessed under Schedule "D" instead of under Schedule "B," in which case the profits arising from the occupation of the land in his possession will be chargeable as profits of a trade. The right to assessment under Schedule "D" seems to be a doubtful privilege. Abatements are allowed in respect of small incomes. For the purposes of such abatements the farmer's income is taken to be one-third of the annual value, viz., the amount on which tax is payable, e.g., if the annual value is £480 only, the tax is payable on one-third of that sum, viz., £160. Persons possessing incomes of £160 are, however, exempt from the payment of tax, so that in the case of a farm of the annual value of £480 no tax whatever is payable by the occupier. If the value exceeds £480, and does not exceed £1,200, tax will be payable on one-third of £1,200, viz., £400. Persons in receipt of incomes of £400 are, however, entitled to an abatement of £160 of the £400, so that tax is only payable on £240. For the purposes of an abatement the farmer must, however, include not only the annual value of his farm, but the income arising from the remainder of his property. If the annual value proves to be more than the preliminary estimate the occupier will be entitled to have the assessment rectified, but he must claim

a return of the duty within one year from April 5. The tax is payable three months in advance, i.e., the tax year ends on April 5, but the tax is payable on or before January 1.

## OBITUARY.

## OLIVER TIETJENS HEMSLEY.

We have received with great regret the news of the death of Mr. Oliver T. Hemsley, the only son of Mr. W. Botting Hemsley, F.R.S., keeper of the herbarium, Royal Gardens, Kew. Mr. O. T. Hemsley, who was only twenty-nine years old and leaves a widow and infant daughter, held the appointment of superintendent of the Government Horticultural Gardens, Lahore, Punjab. He worked and studied in the Royal Gardens, Kew, and left there in 1898 to take up an appointment at the Cinchona Factory, Mungpoo. He afterwards went as assistant superintendent of the Government Gardens at Lahore, subsequently succeeding Mr. Hein as superintendent. Mr. Hemsley was educated at Dr. White's School, Turnham Green, and at King's College School, London. At the age of seventeen, in 1893, he entered the Royal Gardens, Kew. Mr. Hemsley's work in India



THE LATE OLIVER T. HEMSLEY.

gave great satisfaction, and he was highly spoken of in the Government reports. All those who knew Mr. O. T. Hemsley at Kew will hear with regret of his early death, and the many friends of Mr. W. B. Hemsley will join with us in sympathising with him in his sad bereavement. Mr. Hemsley received the news of the death of his son on Saturday last, the 6th inst., by cable, and an hour afterwards came a cheery letter from the son whose loss his parents now mourn.

## HARRISON WEIR.

The death of Mr. Harrison Weir occurred on Wednesday, the 3rd inst., at his residence, Poplar Hall, Appledore, Kent. He was a man of many parts, but was, perhaps, best known as one of the foremost animal painters of his day. There were few things in Nature upon which he was not an authority, and I realised this when spending a most enjoyable afternoon with him in his garden in the latter part of last spring. He had been in failing health for some time past, and although over eighty years of age, and, as he told me,

hardly ever free from pain, yet his manner was as breezy and boisterous as a schoolboy almost up to the last. In his garden at Appledore was to be found an excellent assortment of herbaceous plants and shrubs, his collection of Lillacs and Pæony species being a most varied and interesting one. He also cultivated the old Florists' Tulips and a good many Daffodils, and was at one time a member of the Narcissus Committee of the Royal Horticultural Society. Mr. Weir was born at Lewes in 1824, and his third wife, whom he married in 1899, survives him.

Rye.

F. H. C.

## OLD ORCHARDS AND NEW PLANTATIONS.

**E**XPERIENCE in some of the western counties, which include the largest acreage under fruit, would lead to the conclusion that an undue proportion is very unprofitably occupied. The period of neglect following the first decadence of the Cider industry has extended in too many cases to our own times, with the result that old, diseased, and decaying trees are frequently found venerable ruins, or overflowing store places for all the insects and fungus pests imaginable. Some years back I had occasion to inspect a number of farm orchards in Devonshire, and it was both surprising and painful to see excellent cultivators of the land content to allow their fruit trees to remain in such a terrible state. In the worst examples every branch was laden with lichen and moss, huge limbs broken by storms were allowed to remain in a torn state until decay had penetrated to the main stems, and attempts to cleanse them, to thin the crowded growths, or to afford any manurial aid were rare. An improvement is being effected in the county named, but the process is naturally a slow one, for it is difficult to move either landlords or tenants in the right direction. In other counties similar defects may be seen, but the good work of thoroughly practical horticultural instructors is beginning to yield satisfactory results, though much more remains to be done before farm orchards generally can be placed on an equal basis with the leading market garden plantations.

The task of renovating an old, neglected orchard is considerable, and it is useless to adopt half measures in the undertaking. Several well-intentioned attempts known to me have failed mainly because the efforts were not followed up sufficiently long to produce lasting results. At the present time I have an old farm orchard under observation which is typical of numbers of others. It is 4 acres or 5 acres in extent, and, judging by the remains of the oldest trees, it must date back over 100 years. It has included both Cider Apples and Perry Pears, but few of these are now left, Plums and Damsons having to some extent filled their places. A few years ago this was taken in hand by a fruit-grower, and all the Apple trees which were known to be of comparatively useless varieties were cut back and regrafted with other sorts of proved merit. The work was admirably done. In some cases as many as twenty or thirty branches were grafted. The scions formed good unions, and now, only three years from the time of the operation, excellent heads are developing.

Another means of improving the orchard was tried, but that, too, is not likely to yield good results, owing to the neglect of two important factors. Young, healthy Apple trees of the best varieties were selected for filling the vacancies caused by the removal of old, decayed stems. In most cases they were, however, planted in the exhausted soil that had been occupied by the aged ruins. The grass was either replaced over the roots or it was allowed to grow over the space unchecked, and in some instances the young trees were planted partly under the shade of the older trees, or in dangerous proximity to

them. The explanation given is that it was intended "ultimately" to remove all the old trees and allow the young ones the whole space. But what can be expected to result from these early years of crippled struggles? The stunted, imperfect growth proves already how great and long-lasting the evil will be. In brief, it is a waste of money and labour to "renovate" old orchards in such a manner, yet this is only an example of many where attempts at improvement have been nullified by the neglect of a few simple matters.

When the varieties are unsuitable and the stems are in a sound and healthy state no operation can be more likely to produce satisfactory results than re-grafting, provided the stems are thoroughly cleansed both in winter and summer. Old diseased trees should be removed and burnt; but unless a large space is quite cleared, filling up with young trees is not a method to be recommended.

Orchards, like the one in question, which are laid down to grass and utilised for pigs and poultry receive a good deal of manurial aid, but the older trees are helped materially by applications of liquid manure when growth and fruit are developing. In one of the most successful of such orchards known to me the occupier attributes a large share of the satisfactory growth and crops to annual attention in the supplies of well-diluted liquid manure.

R. LEWIS CASTLE.

## MISCELLANEOUS.

### HINTS ON STOKING.

**F**EW gardening operations are more difficult to learn than stoking. Many men never seem able to regulate the fires so as to maintain that regular temperature so essential to successful gardening under glass. The writer has had during the last twenty-five years an extensive experience of most of the forms of boiler in use at the present time, and hopes to be able to give a few practical hints that may be of use to young gardeners as well as to amateurs, who have the greatest difficulty in economically heating their glass structures. After a very careful study of the various patterns of boilers, I have come to the conclusion that the plain "saddle" is as good as any. I do not at the same time disparage any of the other makes, but because of its simplicity of construction, its moderate cost, and general reliability I consider the plain "saddle" the most satisfactory. Of course for very small houses a form of the slow combustion pattern is very suitable, while for heating very large ranges some of the water-tube boilers are very economical. At the same time it is seldom that we have the choosing of the boiler. We have to stoke, and my idea is rather to show in a general way how best to heat economically with such boilers as we happen to have charge of.

No two furnaces act exactly alike, and I must here state that the hints given must be taken as applying to an average apparatus. In every case it is most important that thorough cleanliness be studied, as no matter how good the furnace is, if clogged with dirt it is foolish to expect satisfactory results.

Before starting a fire, therefore, see that all dust and ashes are removed from the furnace and ash-box, also that the flues are free from soot. If the furnace has a good draught a fire may be started in a very short time with nothing but a good wisp of straw. Place the straw evenly and not too loosely in the furnace, and over it a shovelful or two of small coal, apply a match, give full draught, and in a very short time a good fire will result. Of course, where the draught is only moderate dry sticks must be used. There is usually little difficulty in making a fire do well when it has to be kept going briskly. Where so many fail is in regulating the fire so that a steady heat is maintained for

a lengthy period. After the pipes have been well warmed and the temperature is about right, it is necessary to see how we are to keep this going without waste. A first-rate plan is to push the burning embers well back in the furnace, and then to throw on a fair amount of fresh fuel.

By this method we can usually turn any form of furnace into a slow combustion one. A fire so made burns slowly and steadily, and if both furnace and ash-box doors are closed, and the damper partly closed, the heat is retained for a long time.

In banking for the night the very same method should be adopted, only it must be seen that there are plenty of live embers, or the fire may either go out altogether or be too long in burning up.

Should any doubt be felt on the point, turn on full draught for a few minutes so as to encourage the fire to catch on to the fresh fuel. Some furnaces have such a strong draught that, even with the damper almost close shut, they burn up fiercely, and are often very low in the morning. To obviate this, the fuel for banking should be broken quite fine, and be beaten into the furnace with the fire shovel. A good plan is also to finish up with a quantity of fine ashes over the fuel.

On starting the fire in the morning, first well rake out all dust and clinkers, then throw on a fair quantity of good fuel, put on full draught, and after the heat is well up, repeat as already advised.

As to the kind of fuel to use, it is always safe to use the best obtainable. Where it can be had at reasonable cost anthracite is, undoubtedly, the best and most economical in the end. Very cheap coal is usually very unsatisfactory and costly in the end, while a great many furnaces are quite unsuited for burning coke. I have found, however, that a good fuel is made by mixing up equal proportions of good small coal and coke.

C. B. P. L.

## THE FERN GARDEN.

### WARDIAN CASES AND FILMY FERNS.

**I**T is very seldom indeed that we see a Wardian case in proper order, though under good management there cannot be found a more interesting ornament for windows facing east or north-east. As a general rule, we see them crowded with vegetation, most of which is entirely out of place, consisting of rank-growing plants of too rampant habit for the restricted space afforded. Doubtless in many cases the planting has been started on proper lines and with suitable plants, but the close conditions of case culture tend to the development of seedlings from stray spores or seeds, and these eventually assert themselves so much as entirely to oust the proper tenants. In point of fact, the plants best fitted for Wardian case culture in rooms are comparatively few, and embrace practically no flowering plants at all, but only Mosses and Ferns, or, if they be kept very dry and given plenty of air and sun, Cacti may be grown instead with pretty though curious effect. The only benefit, however, which Cacti derive from case culture is some protection from dust, since they are naturally inhabitants of sunny, dry places exposed to every wind that blows, and thus exactly opposed to the conditions for which Wardian cases were invented.

Undoubtedly the fittest plants of all are the Filmy Ferns, a somewhat numerous tribe of plants which only thrive in very shady, damp places whence drying winds are always excluded. Their structure is of the most delicate kind, as their very name conveys, the fronds being extremely thin and translucent, and quite incapable of standing aerial drought, since, once shrivelled, they possess no power of recuperation such as wilted flower-leaves have. Although we have three hardy native species—the two *Hymenophyllums*, *H. tunbridgensis* and *H. unilaterale*, both very similar in appearance, and the far

handsomer and bolder Bristle Fern (*Trichomanes radicans*), sometimes called the Killarney Fern—there are a great many tropical and sub-tropical Filmy Ferns which, though very beautiful, are more delicate and require protection from frost. Many of these, however, grow at high elevations, and are hence almost hardy or even quite so, such as that marvellously beautiful one, *Todea superba* and its charming relatives *T. pellucida* and *T. intermedia*. Some of the exotic *Hymenophyllums* are also hardy, such as *H. demissum*. *T. radicans*, too, like nearly all our native Ferns, has afforded marked varieties, such as *T. r. Andrewsii*, *dissectum*, and *dilatatum*, the last a fine bold grower; so that, taking these few which we have named, we have quite sufficient to fill a large case or even a large frame in a shady nook in the open.

One of the prettiest combinations for a fair-sized Wardian case in a room, placed, as we have said, at a window on the shady side of the house, is *Todea superba*, raised in the centre on a sort of rockwork, *T. radicans* on each side of it, and the two native *Hymenophyllums* used to fill up the chinks and cover the soil as with a carpet. The soil must be a very open, well-drained compost of two-thirds brown peat, one-third loam, and a liberal dash of coarse silver sand. Into this, on the top in the centre, *T. superba* or *T. pellucida* can be planted in the usual way by scooping a hole, inserting the roots, and then bedding firmly; but the other kinds, having creeping rhizomes or rootstock, should have these pegged down on the surface, then mulched with sifted sandy compost until they are buried, and finally this mulching should be washed in by dribbling water from a rose until the rootstocks appear again on the surface. This has the effect of burying the roots proper and fixing the plants in their places. A gentle drenching with a fine rose then finishes the operation, and if the case is kept quite close, no water will be required for a long time; we do not believe in the need for frequent waterings overhead since the humidity of the confined air precludes it, and unless the water be perfectly pure the fronds suffer by a sort of incrustation. One essential, as we have said, is good drainage. There should be a tap at the bottom of the case to permit of surplus water being drawn off. Fond as Filmy Ferns are of dampness, they are not bog Ferns, and if once the soil gets soured by stagnation, decay sets in and all goes wrong. In time Fern seedlings of various species are fairly sure to make their appearance in the case, *Selaginellas* of several species are also apt to assert themselves. All these must be kept under, though such small-growing species as *Asplenium* *Trichomanes* may be left alone. The case should be so placed as to get as much top light as possible, the more light indeed it gets the more natural the growth of the Ferns, always bearing in mind that direct sunshine must be excluded, since no Filmy Fern can stand it uninjured. As regards Filmy Ferns in frames in the open, nothing can transcend the beauty of a full-grown *Todea superba* in a sunken brick pit, with fronds between 2 feet and 3 feet long forming a symmetrical circle of nearly double that diameter, while if properly installed on the lines indicated above, *T. radicans* may be planted under its wings, as it were, and will even climb up the damp wall out of its way to display its own fronds to the greater advantage. *H. demissum* may occupy the corners to fill up. Given a more shady corner for such a pit, and a ground or rolled-glass cover to keep it close and shaded, we have known a huge specimen to thrive to perfection, though only watered half-a-dozen times a year, while frost had no permanent effect upon the Ferns at all. Those who do not know *T. superba* may form a dim idea of its beauty by imagining a splendid circle of ostrich plumes fashioned out of emeralds, and if such a gem of vegetation is not worth building a brick pit for, to say nothing of its more modern but charming companions, we are no judges.

CHAS. T. DRURY, V.M.H., F.L.S.

## A WINTER RAMBLE.

EVERYTHING that gives brightness and variety to the aspect of the garden is welcome when the ground is white with snow and the trees are leafless. A ramble around the place reveals much of interest. *Lonicera fragrantissima*, one of the bush Honeysuckles, is almost evergreen; at least, it has not yet lost its light green foliage. The other day, after a freezing rain, each leaf was encased in ice, and I looked to see them drop off when they thawed. But no; they are still fresh, and the large bush drapes one end of the front piazza with a mantle of lively green. In March the bloom-buds are due to open, filling the air with delightful aroma and tempting the adventurous bees. A charm about this Honeysuckle is that the bloom remains for a long period, sometimes lasting until May. Another charm is its graceful half-weeping habit of growth. Near the bush Honeysuckle is a fountain-shaped mass of *Jasminum nudiflorum* trained to a short central stake, and allowed to hang over its support until its pendulous branches touch the ground. This stands ready to give us a few bright blossoms whenever winter relaxes his rigours for a few days at a time and gives us a little sunshine to open its expectant flower-buds. Continuing on our way to the Oaks we pass our favourite Japanese Mahonia. Early in the autumn its flower-buds begin to appear in the shape of stout little cones, covered with scales. Would they but continue in this stage, our apprehensions for their safety would not be aroused, but, unfortunately, deceived by the warmth of our treacherous Indian summer, the cones burst open, and the long fingers, five or six to a cone, of the flower sprays appear. These are soft and tender to the touch. The buds do not expand, but in this condition they are fully exposed to the winter. The foliage of the Mahonia does not suffer in cold weather; it is only the too-early flower-buds that get nipped. This dark, glossy, pointed foliage is still beautifully fresh coloured, and does not change as does the foliage of our native Western Mahonia, or *Berberis Aquifolium*.

A group of the evergreen Japanese *Euonymus* comes next, and is protected by a good mulch of "long manure" and Oak leaves. Long manure is manure from the barn-yard mixed with broken stalks and foliage of Indian Corn. This *Euonymus* has once or twice died to the ground in very severe winters, but the roots are hard to kill. With its dark green, shining, scolloped leaves and its numerous bright orange-red berries, it is an effective bit of colour in the winter shrubbery, and very useful for Christmas green. One of the most striking ornaments of the place is a column of living green made by a large old *Akebia* vine twined round and round a yellow Locust tree. This column is 10 feet in circumference and 20 feet in height, and is nearly or quite evergreen, only losing some of its foliage in exceptionally severe weather. It seems to revel in the slight shade and protection afforded by the light foliage of the Locust tree, and blooms profusely, perfuming the air of May with the strange aroma of its plum-coloured flowers.

A large bush of Siebold's *Euonymus* has persistent foliage, not so effective as that of the commoner Japanese species. The leaves are now dull green; but the fruit, which is smaller than that of most of its family, is

produced in dense clusters, and is very bright. In the early spring the old withered leafage is pushed off by the loveliest, almost translucent, light green baby leaflets.

The so-called evergreen Honeysuckle has lost none of its foliage, and one of our native Honeysuckles, whose foliage has all turned a dull red, is still effectively brightening the low bank over which it trails.

We are not so fortunate here in Virginia as garden-lovers in England, who seem to be able to work out of doors in every winter month, and to be rewarded by some bloom even in December and January. Here, it is true that the Dandelions open to cold winter's chary smiles, and the Snowdrop nestles at his knees—

The meek Cordelia to this wild old Lear—

but we often have week after week without a flower, when the ground is covered with many inches of snow.

Some evergreens and some deciduous trees have the knack of looking happy in the coldest weather. The common Arbor Vitæ and its weeping variety look dull and depressed, in striking contrast to those hard-to-class shrubs offered by the nurseryman under the name of *Retinosporas*. Some of these look like Arbor Vitæs, except that their foliage is a fresh lively green all winter. *Cupressus* is, I believe, the proper name for most of these so-called *Retinosporas*. I can heartily recommend *Cupressus lawsoniana*, *C. obtusa* and some of its varieties, and *C. pisifera* as lovely evergreen shrubs. We also have the Southern White Cedar, *Cupressus thyoides*, but its growth on dry uplands is very slow, as it is found growing in a natural state in swamps and wet places.

It is a pleasant experiment to collect evergreen twigs and branches for the open fire. I brought in not long ago some sprays of Box, Cypress of sorts, Douglas Spruce, Silver Fir, Pine boughs, and the Balsam Fir for the log fire in the sitting-room. How they blazed and sputtered, full of aromatic oil, and what glowing outlines they made before they disappeared in fragrant smoke!

The White Cedar, the Balsam Fir, and our common Virginian Red Cedar seem to be unexcelled for use as incense. The Box, too, has a wholesome smell, while a mingling of many sorts together and thrown on a bright blaze of crackling Hickory logs is superior to the best joss-sticks procurable at the Oriental bazaars.

Virginia, U.S.A. DANSKE DANDRIDGE.

## LATE NOTES.

**Portrait of Sir W. Thiselton-Dyer.**—Owing to an oversight we omitted to mention that the illustration of the late director of the Royal Gardens, Kew, in our last issue, was prepared from a photograph taken by Messrs. Elliott and Fry of Baker Street.

**Irish Gardeners' Association and the late Mr. Burbidge.**—At a specially convened meeting of the Irish Gardeners' Association and Benevolent Society, held at 15, D'Olier Street, Dublin, on Thursday, the 4th inst., Mr. J. J. Egan, J.P. (vice-president), presiding in the unavoidable absence of Mr. F. W. Moore, the following vote of condolence with the relatives of the late Mr. F. W. Burbidge was proposed by Mr. J. J. Egan, and seconded by Mr. A. Campbell, past president: "That the members of the Irish Gardeners' Association and Benevolent Society desire to place on record their

profound sorrow and regret at the death of a valued member and friend in the person of the late Mr. F. W. Burbidge (past president), M.A., V.M.H., F.L.S., and tender with respect and sympathy their heartfelt condolence to his relations."

**Société Française d'Horticulture de Londres.**—The annual dinner of this society, which has done so much to further the interests of young French gardeners in this country and of English gardeners in France, was held at the Café Royal, Regent Street, on Saturday last. Mr. J. Harrison, the well-known seed merchant of Leicester, was in the chair. He was supported by Mr. G. Schneider (president), Messrs. C. Harman Payne, Taylor, Bevan, L. Cutbush, and others. Some excellent speeches were made, both in French and in English, and a most enjoyable evening was spent by a large number of members and friends.

**Gardeners' Royal Benevolent Institution.**—Notice is hereby given that the sixty-seventh annual general meeting of the members and subscribers of this institution will be held at Simpson's, 101, Strand, London, on Thursday, the 18th inst., at 2.45 p.m., for the purpose of receiving the report of the committee and the accounts of the institution (as audited) for the year 1905; electing officers for the year 1906; and for the election of eighteen pensioners on the funds. The chair will be taken by Harry J. Veitch, Esq., F.L.S., treasurer and chairman of committee, at 2.45 p.m. The poll will open at three o'clock, and close at four o'clock precisely, after which hour no voting papers can be received. The voting papers have been issued. Any subscriber not having received a copy should communicate with the secretary, George J. Ingram, 175, Victoria Street, Westminster.

**A gardening jubilee.**—The completion of fifty years' connexion with Messrs. Lane and Sons, Berkhamsted, by Mr. L. E. Thomas was celebrated recently by a dinner given by the firm. Mr. F. Q. Lane, the senior partner, presided, and referred in appropriate terms to the guest of the evening, eulogising the services which he had rendered to the firm for so many years. He then presented Mr. Thomas with a diamond ring, which, said Mr. Lane, had been subscribed for by every member of the firm as a small token of their respect for him and their appreciation of his work.

**The Chimney Campanula.**—On seeing the Chimney Campanula finely illustrated in THE GARDEN of the 6th inst. growing in a wall, I was reminded that two summers ago we grew one with purple flowers, which, although it was not measured, was at least 9 feet high. Your correspondent says they sometimes attain 7 feet. My estimate, I think, is a low one, I had almost said 10 feet. I had to get on a tall step-ladder to tie it to the Bamboo sticks. It had three spikes, the centre being the tallest by about 2 feet.—A. E. SPEER, Sandown Lodge, Beher.

**New Sweet Peas.**—As one interested in Sweet Pea culture I should like to draw the attention of others interested like myself in the number of Sweet Peas, especially the new ones, that are being put on the market (some at a high price), and which are not either true or fixed. This is especially the case since Prima Donna suddenly sported and gave us Gladys Unwin and Countess Spencer. Gladys Unwin was kept by its owner until perfectly fixed before he sent it out. But Countess Spencer and its sports, Helen Lewis, John Ingman, Orange Countess, and others, I do not think can be guaranteed true and fixed. Would it not be better for the National Sweet Pea Society not to give an award for any new Pea unless they have a guarantee from the exhibitor that the variety in question is perfectly true and fixed?—J. S. Gedling, Notts.

**Lieutenant-Colonel Prain.**—The portrait of Lieutenant-Colonel Prain on page 19 is from a photograph by Maull and Fox.

**Testimonial to Mr. William Marshall.**—At the Tuesday meeting of the floral committee of the Royal Horticultural Society Mr. H. B. May spoke feelingly of the long service of Mr. Marshall to the society and the committee. On February 21 next Mr. Marshall enters upon the twenty-first year of his chairmanship of the floral committee. A small sub-committee was appointed, with Mr. G. Gordon as secretary and Mr. George Paul as treasurer, and it is proposed to hold a dinner at the Hotel Windsor on Tuesday, February 27, when a presentation will be made.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY.

The exhibition at the hall of the Royal Horticultural Society on Tuesday last, the 9th inst., although not large, was very attractive by reason of its great variety.

#### ORCHID COMMITTEE.

Present: Mr. J. G. Fowler (chairman), Messrs. James O'Brien, de B. Crawshaw, Norman C. Cookson, James Douglas, Francis W. Wellesley, Walter Cobb, Richard G. Thwaites, W. H. White, F. W. Ashton, G. F. Moore, H. Ballantine, A. A. McBean, H. G. Morris, H. A. Tracy, H. J. Chapman, J. W. Odell, J. Wilson Potter, W. H. Young, W. Boxall, H. Little, D. Hans Goldschmidt, Harry J. Veitch, and W. A. Blinay.

F. Menteth Ogilvie, Esq., The Shrubbery, Oxford (gardener, Mr. W. Bainforth) exhibited an excellent group of Orchids. *Laelia anceps* and an unusually fine plant of *Lycaste Ballis*, bearing twelve blooms (cultural commendation) were in the centre, while *Cypripediums* and *Laelia-Cattleya* Charlesworthii were freely arranged on either side. The *Cypripediums* included many good ones, e.g., *C. insignis maculatum nigrum*, *C. Swinburnii magnificum*, *C. I. Wallacei*, *C. nitens magnificum* G. S. Ball, *C. callosum Sanderi*, *C. Maudie*, *C. Euryades*, and others. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, showed a group in which *Cypripediums* in variety, several beautiful *Odontoglossums*, *Vanda cœrulea*, and *Laelia-Cattleya novissima* (L. *anceps* x *C. gaskelliana*) were the chief features. Among the *Cypripediums* were *Cypripedium The Marchioness* (seamum hybrid), *C. aureum* var., *C. insignis Queen Helena*, *C. gowerianum*, *C. St. Alban*, and *C. Earl of Tankerville* (see new Orchids). Silver Flora medal.

Norman T. Cookson, Esq., Oakwood, Wylam-on-Tyne (gardener, Mr. Chapman), exhibited a group of *Calanthes* and their hybrids. Some of the most distinct were *C. x burfordiense*, rich deep rose; *C. x Harriell*, large pure white; *C. x Victoria Regina*, soft light pink; *C. x atro-rubra*, dark rose red; *C. x Phoebe*, bright pink; *C. x Veitchii*, pink; *C. x William Murray*, creamy white sepals and petals, and rose red lip.

Mr. J. Cypher, Cheltenham, showed a very attractive group of Orchids that contained many choice *Cypripedium* hybrids and varieties. Some of the plants were splendidly flowered, e.g., *C. leeanum giganteum* and *C. arthurianum*. *C. Mrs. Jules Hye*, *C. Nodii*, *C. Euryades*, and *C. Salieri* were included among the *Cypripediums*. *Lycaste orata* was represented by a well-flowered plant. Other *Lycastes*, *Odontoglossums*, *Ada aurantiaca*, and *Masdevallias* made up the group. Silver Flora medal.

C. J. Lucas, Esq., Warnham Court, Horsham, exhibited a small group of Orchids, consisting of *Odontoglossums*, *Cypripediums*, *Calanthes*, *Dendrobium Phalenopsis*, and *Oncidium cheilophorum*. Silver Bankian medal.

Several hybrid *Cypripediums* were shown by J. Gurney Fowler, Esq., Woodlands, South Woodford.

M. Ch. Vuytsteke, Loochstrat, Belgium, exhibited several plants of his remarkably fine spotted *Odontoglossums*. Varieties of *O. ardentissimum*, *O. amabile*, and *O. loochstratiense* were shown. Silver Bankian medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed a small but pretty group of Orchids. The *Cypripediums* were choice forms; *Masdevallia tovarensis* and *Dendrobium heterocarpum* were well flowered. Silver Bankian medal.

Messrs. Stanley and Co., Southgate, N., exhibited a group of Orchids in which were *Cattleya Trianae*, *C. T. alba*, *Laelia anceps* var. *Schröderi*, and *Odontoglossum loochstratiense*. Silver Bankian medal.

A plant of *Cattleya Trianae* Wellesleyae, bearing six beautiful white, lemon-throated flowers, *Cypripedium Ville de Paris*, and others were shown by F. Wellesley, Esq., Westfield, Woking.

A botanical certificate was awarded to *Laelia glauca*, shown by H. S. Goodson, Esq., West Hill, Putney (gardener, Mr. G. E. Day). Mr. Goodson showed several other Orchids, including a dainty *Cypripedium*, *C. Niope superbum Fairlawn* var.

In the special class for hybrid *Calanthes*, the first diploma was awarded to *Calanthe Harrisi*, shown by Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne. The second diploma was given to *Calanthe Veitchii*, shown by Jeremiah Colman, Esq., Gatton Park, Reigate.

The first diploma for the best species of *Calanthe* was awarded to *Calanthe vestita rubro-oculata gigantea*, shown by Norman C. Cookson, Esq.

#### NEW ORCHIDS.

*Cypripedium Alobiades magnificum*.—This is a remarkable and quite distinct hybrid. It is the result of a cross between *C. leeanum giganteum* and *C. M. de Curte*. The flower is broader than it is long; the dorsal sepal is some 2½ inches wide and not so high; the upper margin curves over, and thus still further lessens its height. In colour and marking the dorsal sepal is a good deal similar to *C. leeanum*. The petals are heavily marked with red-brown on a green ground; the red-brown pouch is very short and broad. The flower is borne on a short, stout stalk, and the leaves are thick and leathery. Shown by Major Holford, C.I.E., Westonbirt, Tetbury (Orchid grower, Mr. H. G. Alexander). First-class certificate.

*Cypripedium Bella Westfield* var.—This is a cross between *C. vexillarium* and *C. philippense*. It is an attractive flower with a roundish dorsal sepal marked with dark purple, and shaded with light purple, a white ground colour showing through in places. The light purple petals are long and drooping, and extend considerably below the lip; the lip is greyish brown. Shown by F. Wellesley, Esq., Westfield, Woking (gardener, Mr. Hopkins). Award of merit.

*Laelia-Cattleya Helena Westfield* variety.—This richly coloured flower has for its parents *Cattleya schilleriana* and *Laelia cinnabarina*. The sepals and petals are rich apricot coloured, and the purple lip, with yellow throat, adds to the distinct and brilliant colouring of the flower. Shown by F. Wellesley, Esq., Westfield, Woking. Award of merit.

*Catacelys splendens punctatissimum*.—The hooded upper sepal and petals are prettily spotted with crimson upon a white ground. The lower half of the flower is of irregular shape, and is yellow, faintly spotted with crimson. From Sir Trevor Lawrence, Bart., Burford, Dorset (Orchid grower, Mr. W. H. White). Award of merit.

*Cypripedium Earl of Tankerville*.—A hybrid between *C. Krul* and *C. nitens Sander's* variety. The dorsal sepal is wider than it is long, and marked with large spots of dark purple upon a white ground. The petals are greenish brown, broadening at the tips, and the pouch is rather lighter in colour. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

*Brassia-Cattleya Pyrrha*.—An award of merit was given to this plant, which we were unable to find. Exhibited by Messrs. J. Veitch and Sons, Limited, Chelsea.

#### FLORAL COMMITTEE.

Present: Mr. Marshall (chairman), Messrs. Charles T. Drury, H. B. May, William Cathbertson, George Nicholson, James Walker, G. Reuthe, C. J. Salter, H. J. Jones, E. Molyneux, J. F. McLeod, William Howe, R. W. Wallace, J. Jennings, C. Bick, H. J. Cutbush, G. Gordon, Charles Dixon, Charles E. Pearson, Charles E. Shea, E. H. Jenkins, W. J. James, R. Hooper Pearson, George Paul, J. Green, R. C. Notcutt, E. Mawley, James Hudson, J. W. Barr, and E. T. Cook.

A very beautiful gathering of Ferns came from Mr. H. B. May, Edmonton, the plants filling one large table, and including such notable ones as *Doryopteris Duvali*, *Asplenium elegantulum*, *Asplenium nobile*, *Polypodium schneiderianum*, and others. Silver Flora medal.

The cut flowers of the American Tree Carnations from Mr. S. Mortimer, Farnham, were a very fine lot, reflecting the highest culture. Many beautiful sorts were shown. The flowers were excellent. Silver Flora medal.

Messrs. Barr and Sons from Long Ditton brought *Helleborus juvenilis* and *Iris stylosa*.

Messrs. Cannell and Sons, Swanley, showed their excellent strain of *Primulas* in good plants.

Messrs. Ware and Co., Feltham, exhibited a few hardy plants in flower, as *Primula megacarpa*, *Lithospermum rosmarinifolium*, *Adonis amurensis*, a few Lenten Roses, and other flowers. Bronze Bankian medal.

Eight spikes of *Cyrtanthus luteoscapa*, all cut from one plant, were exhibited by Mr. J. O'Brien, Harrow-on-the-Hill. Most of the spikes had four flowers. A very pretty winter-flowering subject for the cool house. A very pretty *Begonia Copper King* (B. *acotrana* x B. *Pearcei*) came with *Citrus japonica* fructu elliptica from Messrs. Veitch and Sons, Limited.

A noble example of *Sarracenia purpurea*, as grown outside in a fully exposed south position, came from Sir Edmund Loder, Bart., Horsham (gardener, Mr. W. A. Cook). It was nearly 2 feet through, with some 200 pitchers. A silver Bankian medal and a cultural commendation were awarded.

Messrs. Waterer and Sons, Bagshot, had excellent examples of *Cedrus atlantica glauca*, together with Yews, Junipers, and other plants.

Messrs. J. Veitch and Sons, Limited, Chelsea, had a lovely group of *Coleus thymoides*, the plants nearly 5 feet high, bearing three or more spikes of rich blue flowers. *Jacobinia coccinea* was equally effective. *Hamamelis arborea*, with wavy golden-coloured petals, is ever an interesting subject thus early in the year. The entire group, backed by Palms and margined with Ferns, made a fine display. Silver Flora medal.

Messrs. William Paul and Son, Waltham Cross, staged a very handsome group of *Camellias*, in which the well-known white *alba plena* was the chief item. Of this alone there were nearly a dozen handsome specimens full of bloom. *Marchioness of Exeter*, deep rose-scarlet; *Reine des Fleurs*, scarlet; *Mars*, crimson-scarlet; *Jupiter*, single scarlet, with fine tufts of yellow anthers; and *Lady Hume's Blush* were all shown in good condition. Silver Flora medal.

Messrs. Peed and Sons, West Norwood, again showed alpine in pots and pans, together with a collection of succulents in small pots. Bronze Flora medal.

A really splendid table of *Cyclamen persicum* var. came from the Rev. H. Buckton, Sutton Hall, Etwell, Derby

(gardener, Mr. Shambrook). White-flowered kinds predominated, and the plants were very finely grown. Silver-gilt Flora medal.

Messrs. Hugh Low and Co., Enfield, exhibited Tree Carnations very finely. Low's Salmon *Cyclamen* was presented in an excellent batch, and the colour is superb. Several of the *Papilio* strain of *Cyclamen* were also shown in good condition. Bronze Flora medal.

Mr. L. R. Russell, Richmond, had hardy shrubs in pots, as *Acunbas*, *Garrya*, *Heaths*, *Skimmia*, &c.; also *Daphne indica rubra*, whose perfume was very marked.

Lord Aldenham, Elstree (gardener, Mr. E. Beckett), staged many good things, such as *Euphorbia fulgens*, Tree Carnations in variety, *Begonia Glorie de Lorraine*, *Mignonette*, and several batches of *Cyclamen persicum* in colour. A few *Streptocarpus* at one end, together with *Cypripedium insignis*, made up a good variety of winter-flowering subjects. Silver Bankian medal.

The Misses Hopkins, Mere, Cheshire, exhibited handsome clumps of Christmas Roses with Winter Aconites and *Primroses*.

Mr. E. Drost, Richmond, staged a fine lot of *Hippastrum*, *Lilacs*, *Asalea mollis*, *Tulips*, and other things in condition with the intimation that these plants had not been subjected to the refrigerator treatment. Silver-gilt Bankian medal.

A set of three plants of *Jasminum primulinum* came from Mr. Leopold de Rothschild, Gunnersbury House (gardener, Mr. Reynolds). The plants were more than 5 feet high, most freely branched, bearing beautiful sprays of yellow-coloured blossoms. It was noticeable that in many blossoms there was a decided tendency to doubling. Silver Flora medal.

*Veltheimia glauca* and *Masseana pustulata*, the latter with broad, Hemanthus-like leaves and a central crown-like inflorescence, came from Mr. H. J. Elwes, Colebourne, near Cheltenham.

A sweet-scented pink-flowered Carnation, *Viscountess Cranley*, came from Mr. T. H. Slade, The Gardens, Fottmore, Ekeater.

Mr. F. Judson, Hall, showed flowers of *Chrysanthemum* Mrs. C. Jennings, a red-flowered variety.

#### FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. Joseph Cheal (chairman), Messrs. T. W. Bates, S. Mortimer, Alex. Bean, J. McIndoe, George Kelf, H. Markham, Edwin Beckett, John Lys, F. Q. Lane, J. Willard, H. Parr, Charles Foster, Owen Thomas, and W. Foupard.

Messrs. George Bunyard and Co., Maidstone, exhibited a large collection of Apples and a few dishes of Pears. The Apples were splendid fruits, finely coloured, as Mr. Bunyard's Kentish-grown Apples always are. Such sorts as Washington, Mrs. Phillimore, Winter Quarrenden, Reine des Superbs, Gascoyne's Scarlet Seedling, Nancy Jackson, Calville Rouge Frococe, and others were most beautifully coloured. Among the Pears were large fruits of *Catillac* and *Uvedale's St. Germain*, one fruit of the latter being enormous. Ramilles, a most attractive fruit, and *Vernum* were well shown too. Hog Memorial Medal.

Mr. W. A. Cook, gardener to Sir E. G. Loder, Bart., Leonardlee, Horsham, showed a small collection of Apples and Pears. There were some excellent fruits among the latter; for instance, *Beurré de Naphan* (a roundish, light green fruit), *Olivier des Serres*, *Duchesse de Nemours*, *Duchesse de Bordeaux*, *Josephine de Malines*, *Catillac*, and others. Silver Bankian medal.

Messrs. Cross and Son, Wilsbeck, exhibited three new Apples—*Pockover*, *James Kirk*, and *Mrs. Kirk*—but none obtained an award.

Mr. J. C. Tallack, Shipley Hall Gardens, Derby; Captain Purjoy, R.N., Shalstone Manor, Buckingham; and Mr. F. Braby, Bushy Lodge, Teddington, showed various Apples, but no awards were made to them.

Mr. E. Beckett, gardener to Lord Aldenham, Elstree, Herts, showed two dishes of excellent Mushrooms. Cultural commendation.

A silver Bankian medal was awarded to a collection of Alicante Grapes shown by Mr. J. Armstrong, gardener to W. Shuter, Esq., 22, Balaise Grove, Hampstead.

Messrs. George Massey and Sons, Spalding, exhibited a collection of Potatoes in many well-known sorts.

A first-class certificate was awarded to *Citrus japonica*, shown by Messrs. James Veitch and Sons, Ltd., Chelsea.

#### GARDENING APPOINTMENTS.

MR. NORMAN GILL, from the Memorial Gardens, Cawnpore, has succeeded Mr. H. J. Davies as superintendent, Government Gardens, Allahabad.

MR. E. LONG, superintendent of Government Gardens, Fyzabad, in Oudh, has been transferred to Simla, in charge of Government House Gardens.

MR. E. HELPS, late head gardener to E. H. Atchley, Esq., Rodwell Hall, Trowbridge, has been appointed head gardener to Sir Arthur Herbert, Colebrook Park, Aberystwyth, Monmouth.

MR. ALFRED HARRISON, late head gardener to Sir J. Shelley, Bart., for three years and four months at Field Place, Horsham, has been appointed gardener to Sir E. Hutton at the same address.

MR. H. PRENTICE, for the past two and a half years general foreman at Gregory, Newtown, Montgomeryshire, has been appointed gardener to W. Gordon Canning, Esq., Hartbury House, Gloucester.

MR. F. TAYLOR, for the past three years foreman at Ruthin Castle, North Wales, has been appointed head gardener to E. W. Williams Wynne, Esq., of Coed-y-Maes, Welshpool, and entered on his duties on the 10th inst.

\* \* The Yearly Subscription to THE GARDEN is: Ireland, 6s. 6d.; Foreign, 8s. 9d.



# THE GARDEN.

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JANUARY 20, 1906.

## MOUNTAIN HAREBELLS.

**W**ERE there no alpine flowers but these, the hills and high rocks would yet be adorned with great loveliness of colour and airy grace of form. The woods, meadows, copses, and high treeless pastures of northern lands are everywhere gay with the Blue Bells of the larger species. Long after the blossoms of these are waving among the long early summer grass, the higher alpine kinds rest under the snow, impatient to unfold every tiny shoot that forms their tufted carpet, having the small dark bells folded up in its heart. Then when the snow dissolves from the worn stem and long-buried verdure, every shoot quickly unfolds its treasure, and every tuft bears a thousand bells or stars. The earth, sad in its dull pallor, will soon be robed with blue—near us, around our feet everywhere, yet pure, and soft, and perfect as the hue of the deep sky overhead. And not only on sweet wide alpine pastures, or in sunny hill copses, or sheltered hedgerows, or high snow-clad ranges, or lowland well-watered meadows is their soft beauty seen—in all these there is abundant plant-food and water—but it is the office of the mountain Harebells, also, to embellish the arid sun-burnt slopes of wasted earthless rock that sometimes form such vast walls about the southern feet of the great mountain ranges. Here, from crevices in the hard rock, from which the roots cannot be extricated, small Harebells spread forth graceful mantles of green, which in spring become as gaily jewelled with flowers as the kinds that live richly on the deep moraine gravel or soft mountain meadow-loam. The smaller Harebells creep down to the hot shores of the Mediterranean to stain with blue the hard rocks washed by its wave; and not content with the precipice, alpine lawn, or other natural surface, these hardy children of the rocks invade the domain of man.

In the pleasant gardens of Western Europe, nothing is easier to enjoy the loveliness of these flowers, and by the exercise of a little judgment they may be made to look almost as charming as in their wild state. The taller and medium-sized kinds are happy and long lived in our garden borders, where, however staked and stiff, they are not very

attractive when the full glory of bloom is past. A good many of these kinds may be naturalised in half-wild spots in woods and pleasure-grounds, and by shaded grass walks; in such positions the effect is very beautiful when the pyramidal fountains of the blue Harebells appear above the long grass and other herbs in such positions. We shall long remember the surpassing loveliness of a large tuft of Rampion, accidentally naturalised among wild Ferns and Briars, beside a grass walk, and which, wholly uncared for, of course, annually sent up showers of the loveliest Blue Bells, and formed by itself a little picture equal to anything elaborated with care and expense in gardens. The smaller kinds may also be frequently naturalised with ease. Old walls are welcome dwelling-places for the species that abound on dry rocks in a wild state; wherever underlying rock crops up naturally a number of beautiful species may be naturalised.

Our common English Harebell, and other nearly allied kinds, thrive and flower freely, though in a very dwarf state, among grass that is frequently mown. In the rock garden all the mountain Harebells are easy of culture, and such few of them as may perish on the level ground in heavy soils endure long in dry crevices of rock; some of them like *C. fragilis* and *C. garganica* have, when planted on dry vertical faces of rock, a habit of growing equally in all directions, pressing their star-laden shoots firmly against the inequalities of the rocks, and frequently flowering and extending themselves thus for months, the shoots (which do not cling or creep) never showing a tendency to fall wearied from the rocks. Erect flowering kinds, whose shoots do not spread freely in this manner, like the beautiful *C. Pulla* and *C. Raineri*, are best on the more level spots or on ledges of loamy soil, where they may spread into wide cushions. A number of interesting dwarf kinds, like the Carpathian Harebell and its varieties, and *C. turbinata*, thrive in ordinary soil in borders, forming pretty edgings, or looking better still in tufts on the margins or borders of hardy flowers. The Harebells are flowers for the large as well as the small garden, and should be amongst the first plants chosen for the rock garden. They form a group of great interest.

## RECENT PLANT PORTRAITS.

THE second part of the *Revue Horticole* for December figures

*Rehmannia angulata*.—Native of China. A large-flowered and free-blooming greenhouse herbaceous plant, which was sent to Messrs. Veitch by their collector, Mr. Wilson, and has been exhibited by them in quantity for the last two years at most of the principal horticultural exhibitions in London.

The part of the *Botanical Magazine* for January figures

*Asparagus Sprengeri*.—Native of Natal. This is the second illustration of this greenhouse trailer, now given to show the plant covered with its ornamental crimson fruit or berries. The former portrait, No. 7728 in the 126th volume of this work, under the synonym of *A. ternifolius*, shows the plant in full flower.

*Cynorchis compacta*.—Native of Natal. This is a pretty little terrestrial Orchid of low stature, which is nearly allied to *Habenaria*, and bears freely small bunches of small pure white flowers.

*Oxalis adenophylla*.—Native of Chili. This is a most beautiful *Oxalis*, with large, rosy blush flowers, with a deep rose-coloured centre, which are usually produced in threes on short flower-stems. This species is closely allied to *O. enneaphylla*, and was discovered by Mr. H. J. Elwes, F.R.S., who sent it to Kew.

*Colchicum crociflorum*.—Native of Turkestan. This is a pretty little species, with pure white flowers, with a deep purple midrib on the under petal.

*Wittmackia lingulata*.—Native of the West Indies. This is a Bromeliad, with branching spikes of small flowers of little or no beauty.

The December number of *Flora and Sylva*—which I regret to see is the last monthly issue of this most beautiful publication, which will henceforth only appear as a yearly volume—contains portraits of two of the new Lilies sent to Messrs. Veitch from China by their collector, Mr. Wilson, and the two beautiful dwarf bulbous *Iris*es from Bokhara and Turkestan collected by Mr. Sintenis for Miss Willmott and Van Tubergen of Haarlem, and named by Professor Foster *I. warleyensis* and *I. bucharica*. They are perfectly hardy, and should be in every good garden.

The first part of the *Revue Horticole* for January figures, under the new name of *Pæonia Delavayi*, the yellow-flowered form of the Chinese Tree *Pæony* sent out by Messrs. Lemoine of Nancy some five years ago under the name of *P. lutea*; also on the same plate a supposed improved form named *superba*. Both this and the ordinary form bloomed with me simultaneously this summer, and only differed from one another in the foliage, that of *P. D. superba* being much more deeply cut and more ornamental than that of the type, but the flowers, instead of being much larger in size, were identical in every respect, and did not deserve the name of *superba*.

The January number of the *Revue de l'Horticulture Belge* gives a double plate of the eight new shades of colour of *Nicotiana Sandera*, now being distributed to the horticultural world for the first time. It will be interesting to see how the flowers of these hybrids compare with those of



a new cross effected by Messrs. Cayeux and Leclerc of Paris between *N. Sanders* and one of its parents, *N. affinis*, which has already received an award of merit from the Société Nationale d'Horticulture de France.

W. E. GUMBLETON.

## COLOURED PLATE.

PLATE 1291.

### NEW TUBEROUS BEGONIAS.

**M**ANY new and beautiful tuberous-rooted Begonias have been introduced during the last few years, some of them almost as perfect in contour and as delicate in colouring as a Camellia. The hybridist has so fashioned this flower that the tuberous Begonia is now one of the most valuable we have for the garden in summer. From July until October the handsome flowers, of various forms and innumerable shades of colour, are produced abundantly; it is, in fact, only when cut down by frost that the tuberous Begonia loses its beauty. The varieties shown in the accompanying coloured plate are Mrs. Moger (salmon), Countess of Warwick (yellow and orange), and the Right Hon. J. Chamberlain (crimson). They were sent to us by the raisers, Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath, who grow this flower to perfection.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

January 23.—Royal Horticultural Society's Exhibition and Meeting.

January 24.—Croydon Gardeners' Society's Annual Dinner.

February 13.—Royal Horticultural Society, Annual Meeting 3 p.m., Meeting of Committees 12 noon; Horticultural Club, Annual Meeting 5 p.m., Annual Dinner 6 p.m., Hotel Windsor.

**Lewes Chrysanthemum Society.** The annual exhibition of this society will be held on November 14 and 15 next.—E. H. HALLERT, Hon. Secretary, 52, Leicester Road, Lewes.

**A summer show in Edinburgh.**—Much pleasure is expressed in Scottish gardening circles at the announcement in the report of the council of the Royal Caledonian Horticultural Society that a summer show is to be held in the course of the month of July, and that the event will occur in conjunction with the National Rose Society's show. The summer shows of the Royal Caledonian Horticultural Society were for years a recognised feature of the horticultural year in the North, and their cessation in 1889 was much regretted by many, although it was admitted that the council could adopt no other course. Since that time great improvements have been effected in several directions, and summer flowers have steadily gained in popularity. The council of the Royal Caledonian Horticultural Society have thus decided to hold this show, with every right to anticipate the support of horticulturists in Scotland and elsewhere, and, if the general public will also do their part, there is no reason why it should not be an unqualified success. The support of the National Rose Society is in itself of the highest importance. That society has justly earned for itself a good reputation, and its association with the National Horticultural Society of Scotland at this time will be an assurance to the public that nothing

will be left undone to secure the finest Roses possible at the season. The show will be certain to be valuable as introducing to many Scottish growers the finest Sweet Peas, shown at their best, and at a time when they are of higher quality than can usually be exhibited at the autumn shows in September. The date is rather too near the provincial show of the National Sweet Pea Society at Ulverston on July 18, but the enthusiasm of the grower of Sweet Peas is quite equal to exhibiting at both the Edinburgh and Ulverston shows.

**A famous wall garden.**—It may be noted in connexion with your reference to wall gardening that the most interesting wall garden is (or I am afraid I must say was) the self-sown one on the walls of the Coliseum at Rome. At one time there were there 420 species of flora, in which 68 orders and 250 genera were represented. There was a large and varied collection of both Gramineæ and Composite, with plants rendered interesting in their connexion, such as the *Rhamnus Spinea Christi*, &c. Fig trees, the *Ulmus campestris*, &c., were no doubt unwelcome guests, but the stones of the Coliseum, which are not exactly pebbles, might safely have continued to offer hospitality to most of the others.—GEORGE CADELL, 20, Murrayfield Drive, Edinburgh.

**Fruit tree planting in Fifeshire.**—In continuation of the series of demonstrations organised by the Technical Education Committee of the Fifeshire County Council, a demonstration of the planting of fruit trees was given on January 8, in the gardens of Mrs. Ramsay, Hope Park, Cupar. The demonstrator was Mr. George P. Berry, the lecturer on horticulture to the Edinburgh and East of Scotland Technical College; there was a large attendance of gardeners and others interested in the subject. Mr. Berry not only showed by actual practice the proper way to plant, but explained the reasons for planting so as to secure surface rooting. In the medium loam of the gardens at Hope Park he planted 4 inches deep, and each part of the planting process was shown and explained in a thorough manner.

**Rainfall in 1905.**—At Freeland Lodge Gardens, Woodstock:

Month.	No. of days on which rain fell.	Greatest depth in 24 hours.	Date.	Total per month.
January	8	0.23	5	0.87
February	12	0.06	24	0.64
March	20	0.37	14	3.08
April	17	0.83	10	1.97
May	8	0.96	31	1.13
June	16	0.64	30	4.22
July	5	1.04	1	1.20
August	18	1.26	29	4.62
September	8	0.23	29	1.00
October	7	0.53	30	0.96
November	12	0.70	11	3.06
December	11	0.28	29	1.33

Total .. 137

Total .. 23.56

Total rainfall for 1904, 26.37 inches.—WM. J. SHORT.

**Roses in winter.**—The Rev. David R. Williamson writes to us as follows from Kirkmaiden Manse, N.B.: "It may interest many of your readers to learn that yesterday (the 9th inst.) I found several very fine flowers, nearly full-blown, on that beautiful climbing Rose *Bouquet d'Or*, generally regarded by rosarians as a greatly-improved form of *Gloire de Dijon*, which it certainly surpasses. The plants on which these flowers appeared have been growing steadily for many years on a sheltered but somewhat shady south wall, at a considerable elevation. In a similar situation the French *Noisette*, *Aimée Vibert*, about a week ago suddenly revealed a grand cluster of pure white flowers, at a height of 15 feet. As another illustration of the unique mildness of the season (which has caused the double-flowering Cherry to burst prematurely into leaf) I may state that in my own garden *Scilla sibirica* and the lilac *Primrose* are already in bloom. The assertion of Montgomery,

that 'The Rose is but a Summer's reign,' is no longer true. But winter of late has been steadfastly vindicating the truth of his other lyrical affirmation: 'The Daisy never dies.'"

**Lagerstrœmia indica.**—I saw in THE GARDEN a few weeks ago a notice of *Lagerstrœmia indica*. From my experience of the plant I believe it would prove hardy in our Western Counties and Southern Ireland. When coming to my present house, over twenty-five years ago, I found a large conservatory in bad condition, and needing especially new heating apparatus. It had, of course, been stripped of its plants by our predecessors, with the exception of some half-dozen planted out which they did not consider worth moving. Amongst these was a good-sized bush of *Lagerstrœmia*. For three years the conservatory remained unheated, with a good deal of broken glass admitting wind and frost during the exceptionally severe winters of the early eighties. Then we decided to repair and use the conservatory, and ever since the *Lagerstrœmia* has been "a thing of beauty," now over 20 feet high. I may mention that a climbing *Heliotrope* succumbed the first winter in the abandoned greenhouse, so the *Lagerstrœmia* is more hardy. Your many correspondents have been lamenting over the failure of *Cosmos* to flower last summer. I think it must have something to do with the seed not having ripened properly the previous summer, as we have always been most successful with it till last summer, when although the plants grew strong and leafy they failed to produce a single flower.—SUSSEX.

**Silver-barked Birches.**—Of the various graceful species of *Betula* in cultivation none is more conspicuous in early winter than *B. populifolia*, which is also termed the Grey Birch, though that title fails to convey an adequate idea of its beauty. A handsome well-grown tree, between 30 feet and 40 feet high, in the Royal Gardens, Kew, displays the characters of the species admirably, and under a bright sun the bark of stem and branches has a glistening silvery whiteness which compels attention. The general habit of the tree is light and elegant, the tips of the slender branchlets, drooping slightly as in forms of *B. alba*, but it grows freely even in the shallow soil of Kew. In striking contrast is *B. lutea*, the yellow Birch, which has a peculiar dark polished metallic-like bark, and *B. papyracea* is also notable near the first-named, with grey or whitish bark, and possessing an upright compact habit that is most distinctive. The beauties of the common Birches, as well as their variations, are charmingly shown on Wimbledon Common, near the road from Putney to Wimbledon, and there are few places around London where such picturesque specimens can be seen.—R. L. C.

**Apple Court of Wick.**—Chiefly because the fruits are small, this Apple has been excluded from many recent selections of dessert varieties. Garden space is limited, there is a demand for novelties, and the collections grown have to be fashioned accordingly. Many prefer a dessert Apple of moderate size. Court of Wick possesses several characteristics to recommend it, for when well ripened the fruit is of rich flavour with a juicy crispness of flesh, and is in use long after Cox's Orange Pippin is past its best. The tree is of moderate growth, thriving in various soils and situations, and is a fair cropper except in the most exposed positions. I have grown it in both heavy and light soils with satisfactory results, and it must be included in that useful though limited class of disease-resisting varieties. There is reason to believe it is an old variety, and the late Dr. Robert Hogg determined it to be identical with seven or eight Apples grown under other names, but he never succeeded in discovering its exact history, though it was supposed to have been raised from Golden Pippin at Court of Wick in Somersetshire.—R. L. CASTLE.



NEW TUBEROUS-ROOTED  
BEGONIAS.





**Belfast Chrysanthemum Show** will be held on Tuesday and Wednesday, November 6 and 7.—J. MACBRIDE, 1, *Adelaide Street, Belfast*.

**Webster's Foresters' Diary** is a most useful publication. Besides the pages for memoranda characteristic of every diary, there is other information that is of considerable value to the forester and gardener. There are notes upon afforesting waste lands, cost of forming plantations, work in woods and forests for each month of the year, rules for thinning, rules for tree planting, &c. It is a book that every forester, estate agent, or anyone having charge of woods or forests would find most useful. It may be had for half-a-crown from William Rider and Son, Limited, 164, Aldersgate Street, E.C.

"**My Garden Diary for 1906**" is the title of a dainty booklet issued by Messrs. Sutton and Sons, Reading; it should be read by all those who believe that "doing things in good time is the main secret of successful gardening." "My Garden Diary" gives particulars of all important work that should be done as each month comes round, and may be consulted with advantage throughout the year. In addition to the useful monthly reminders, "My Garden Diary" contains other valuable miscellaneous information, such as lists of bedding annuals, climbing annuals, winter-flowering plants, &c.

**The Horticultural Directory.**—The issue for 1906 of this most useful publication has just been published. This is the forty-seventh year of its appearance. It contains the names and addresses of gardeners in all counties of the British Isles. The names of their employers are given; the nearest post town, the nearest railway station, and other information that is of value to all horticulturists. The contents are so arranged as to enable one to find the object of one's search with ease. Besides being a directory, this book contains a good deal of other miscellaneous information useful to all who have a garden. It may be obtained from the office of the *Journal of Horticulture*, 12, Mitre Court Chambers, Fleet Street, E.C., price 1s.

**National Sweet Pea Society.**—The sixth exhibition of this society will be held on Thursday, July 5th, in the Royal Horticultural Hall, Vincent Square, Westminster. The first provincial exhibition will be held at Ulverston on Friday, July 20th, in connection with the Ulverston Rose Show. In the report for 1905 the committee state that they have "never been able to chronicle such grand progress as has characterised the movement of the society during the now closing year. No less than 150 new subscribers have joined the society since the report for 1904 was presented. The committee ascribe this gratifying augmentation of the membership to two things: (1) the publication of the 'Sweet Pea Annual,' and (2) to the loyalty of the members. The success of the 'Sweet Pea Annual' was immediate. It has proved the best advertisement that the society ever had. For the first time in its history the society joined with the Royal Horticultural Society, in whose hall the exhibition was held. The tiered staging, which was first tried and proved successful in 1904, was extended, and met with the highest appreciation from exhibitors and public alike. One thing only marred the success of the show. This was the failure of the Audit Class, in which the Sutton Cup, the Society's Gold Medal, and money prizes were offered. Several of the exhibitors failed to appreciate the importance of correct counting, and the judges were most reluctantly compelled to disqualify the majority of the competitors and withhold the Sutton Cup, Gold Medal, and First Prize. Steps will be taken to prevent such a *contretemps* in future. The society has largely increased its membership, but expenses have increased too." However, the committee are able to show a cash balance of

£22 2s. 10d. Full particulars may be had from Mr. H. J. Wright, 32, Dault Road, Wandsworth, S.W.

**Single-flowered early Chrysanthemum Dora Godfrey.**—This is one of the most recent additions to the early-flowered single Chrysanthemums. It will be welcomed for several reasons; first of all, its pleasing blossoms of a canary yellow colour possess a charm that other early-flowered Chrysanthemums do not, the blooms in this instance being fully 3 inches in diameter, and borne quite freely in elegant sprays. The illustration accompanying this note will give a good idea of the character of both plant and flowers, the profuseness of the display being well shown. It is a matter for regret that there are so few really good early-flowered single sorts at present catalogued, but the time is not far distant when a number of reliable ones will be forthcoming. With such varieties as the plant under notice there is not the slightest doubt that much will be accomplished by English raisers of new Chrysanthemums. This variety and others, such as the rich crimson-



CHRYSANTHEMUM DORA GODFREY.

coloured sort sent out two years since by Mr. H. J. Jones and named Mrs. Charles H. Curtis, will be regarded as the forerunners of the type. This last-mentioned variety contrasts splendidly with the canary yellow flowers of Dora Godfrey, and as they both come into flower at about the same time (early October) the two varieties should be extensively planted for outdoor displays in the early autumn. Plants of the variety under notice are of bushy growth, as the picture aptly portrays, and as they partake of a healthy and vigorous constitution they are well suited for border culture. Their height is about 3 feet. To Mr. W. J. Godfrey of Exmouth, Devon, belongs the credit of having raised and introduced this new sort.—D. B. CRANE.

**Webb and Sons' Primulas.**—I hope you will give me space in your valuable paper to say how well Messrs. Webb and Sons' Primulas have done with me. Their stellate varieties are splendid; the flowers are large and showy, and are borne on long stems rising well above the foliage. These plants are most useful for house decoration. Webb's Exquisite Primula is very good, with its large and beautifully-fringed

flowers of various colours and perfect form. The plants are robust, and their large trusses of bloom are produced quite clear of the foliage. I should also like to say how fine Webb's Brilliant Single Petunias were with me last year. This is an excellent strain, and remarkable for the large size of the blooms and their great variety of colour; the plants make a grand show either in beds outdoors or in the conservatory.—H. WARRE (gardener to H. R. Franklin, Esq.), *Farnham Manor, near Oxford*.

"**Flora and Sylva.**"—The December number of this beautiful magazine is, we regret to learn, the last of the monthly issues. In the future *Flora and Sylva* will appear as a yearly volume only.

**Princes Street Gardens, Edinburgh.**—A proposal has been made that the pavement of Princes Street, Edinburgh, on the side next the West Gardens, should be broadened to the extent at present occupied by the Ivy-covered slope, and that a wall should take the place of the slope. There is some difference of opinion as to the effect upon the gardens, and the scheme will hardly be proceeded with without full consideration. The corporation possesses a safe guide in the person of Mr. J. W. M'Hattie, the superintendent of parks, who may be trusted to give sound advice in the matter.

**Potatoes not decaying.**—In reply to "G. H.," I must acknowledge that, not being a large grower of Potatoes, I have had no experience of Scottish-grown "seed." Has he overlooked the excellent letter of "A. D." in THE GARDEN of November 25 last? If so, he cannot do better than turn up that issue and read "A. D.'s" experience. I have resolved to act upon the method mentioned by him of using unripe tubers for planting. My plan hitherto has been the very opposite, viz., to allow a few to remain in the ground long enough for the haulms to die quite down before lifting to store for "seed" another season.—W. B., *Housham, Lincoln*.

**New Roses in Australia.**—Talking of novelties in Roses, you can seldom know how one is going to turn out till it has been tried two or three years. Amongst those introduced three years ago, Lady Roberts, Souvenir de Pierre Notting, Frau Karl Druschki, Duchess of Portland, Perle von Godesberg, and Mme. Vermorel have, in my opinion, proved themselves as distinctly first-class and much above the ordinary. Lady Roberts is one of those "pearls" amongst Roses that come consistently of a most perfect shape; a divided centre is a thing unknown to it, and the colour, when half or three-quarters open, is something exquisite. Frau Karl Druschki is also a beauty, and undoubtedly the daintiest white Rose we have. With regard to Souvenir de Pierre Notting, I am not so enthusiastic, and I am of opinion that it is not going to do here as well as catalogues and imported descriptions have led us to expect. I have seen many good blooms of it, but all the same, I don't think it is going to be a Maman Cochet, or a Kaiserin Augusta Victoria either. Perle von Godesberg is not distinct enough, and is too much like its parent, Kaiserin Augusta Victoria.—*Australian Garden and Field*.

**Brighton and Sussex Horticultural Society.**—In submitting the balance sheet for the past year, the committee have pleasure in reporting a profit on the year's working of £50 16s. 3d. Considering the loss sustained last year, this is especially gratifying, and they desire to thank the president, vice-presidents, subscribers, hon. members, and ordinary members for their kind support, without which it would be impossible to produce three fine exhibitions, and to carry on the monthly meetings which have proved so beneficial to the younger members. The three flower shows have been up to the usual high quality, and the attendance about normal.—WILLIAM BALCHIN, *Treasurer*; GEORGE MILES, *Chairman*.



## STOVE &amp; GREENHOUSE.

## THE PERSIAN CYCLAMEN.

**T**HERE is no plant of moderate size that, when well managed, contributes so much to a floral display through winter and early spring as the Cyclamen. It comes true from seed in several shades of colour, varying from purest white to crimson. The best time for sowing seeds is November, or not later than the first week in January. The best soil for this purpose is a good loam, with one part leaf-mould and sufficient silver sand to ensure free drainage. Press this mixture firmly into pots or seed-pans, dibble seed about 1 inch apart and  $\frac{1}{2}$  inch deep, then give a good watering with a fine rose. After the pots or pans have drained, a good plan is to cover the surface with a thin layer of cocoanut fibre or some clean moss, as this checks rapid evaporation and keeps the surface free from moss. Place the pots or pans in a temperature of about 60° Fahr., and care should be taken to remove fibre or moss as soon as the seed begins to germinate, which it does in about a month or six weeks. Seeds not only germinate slowly, but also the seedlings develop most irregularly, a plant sometimes coming up long after others have made a start.

**POTTING.**—When some of the seedlings are large enough for removal transfer them to 2½-inch pots, taking great care to keep the small corm half above the soil, then place on a shelf as near the glass as possible to prevent the plants from getting drawn, in a temperature of about 60° Fahr.

When the plants have made four or more leaves they should be ready for a larger size pot. Do not give them too big a pot, the middle size (3-inch) would be quite large enough, as Cyclamen do not like to be overpotted. By the end of May they should be placed in cold frames. If the frames are too deep a good plan is to fill up with ashes to within 15 inches of the glass, this helps to keep a free drainage under the plants. Care should then be taken with watering, shading, and ventilation. Encourage as much growth as possible, and never allow the plants to become dry at the roots or they will soon lose their foliage. On very hot days a good plan is to give them a spray over about midday, and then again in the afternoon when closing the frames. This helps to encourage growth, and checks red spider and thrips. Towards the middle of July the plants will be ready for their final potting into 4½-inch or 6-inch pots. The soil for this potting should consist of a good fibrous loam broken up into small pieces, leaf-mould, wood ashes, sharp sand, and a little bone-meal. Some gardeners like to add decayed cow manure to the soil. This I would advise not to be done, for whenever I have used it I have always been troubled with maggots, which feed on the young roots, and the plants will gradually dwindle away and die.

**GENERAL TREATMENT.**—After this potting put them back into cold frames, wide apart, so that the plants can get a free circulation of air. Keep them well shaded on very hot days and do not give quite so much air for a time until the plants have recovered from the disturbance. They will now develop foliage fast. Keep a careful watch for thrips and red spider, or the leaves will be soon disfigured. Fumigation with XL All will destroy all thrips, and a moist atmosphere will check red spider. Should flowers appear, remove them by taking hold of the stem and giving it a sharp pull; never cut them off, for the remaining portion will die down and often cause the corm to decay. Towards the end of September the plants may be removed to the place where they are intended to flower. An ordinary greenhouse temperature will suit them. If the pots are filled with roots give some liquid manure water once a week, and this will help them to throw up their flowers. Seedling

Cyclamen grown under this treatment I have had in bloom from the first week in November until the end of April.

**THE SECOND YEAR.**—Cyclamen may be grown a second year by drying them off moderately and resting for a time. A cool frame may be used for this purpose. Remove the lights on fine days, and only protect from heavy rains. After the plants have rested until the middle of June they should be shaken out of their pots and repotted into smaller ones and placed on a gentle hot-bed so as to encourage root action. After the corms have started into growth repot them into 6-inch pots. Use the same compost as advised for the final potting of seedlings, and give them the same treatment. It is not advisable to save plants after this age, as seeds sown each year will keep up a stock, and young plants are much to be preferred. Cyclamen when well grown are among the most useful winter-flowering plants we have. They can be used for several purposes. As pot plants they keep well in rooms, and are useful for table decoration if cased with Maidenhair Fern or any other foliage. When out the blooms will pack and travel well, and afterwards freshen up in water. W. DYSON.

*Firlands Gardens, Sulhamstead.*

## STOPPING AND TIMING CHRYSANTHEMUMS.

[In reply to "T. C."]

In addition to those already given, stop and time the undermentioned as given under the respective headings:

## JAPANESE.

Name.	When to Pinch the Plants.	Which Buds to Retain.
Mrs. A. H. Lewis	3rd week in April	1st crown
Rev. W. Wilks	Last week in March	2nd crown
Geo. Lawrence	Natural break	1st crown
Chelton	1st week in April	2nd crown
J. E. Upton	2nd week in March	"
Mary Inglis	March 20	"
Maynell	1st week in April	"
Mrs. H. Emmerton	3rd week in March	"
Kimberley	Mid-April	"
Mme. Gabrielle Debris	2nd week in April	"
Mme. Carnot	Mid-April	"
Mrs. E. Hammett	Last week in March	1st crown
Miss E. Fulton	Natural break	2nd crown
Mme. Gustave Henry	"	"
Maud du Cros	"	"
Edith Smith	1st week in April	"
Vicar of Leatherhead	3rd week in May	1st crown
Mafeking Hero	Natural break	"
Sir H. Kitchener	3rd week in May	"
Nellie Pockett	1st week in April	2nd crown
Duchess of Sutherland	About May 12	1st crown
Bessie Godfrey	Natural break	"

## INCURVED.

Golden Mme. Ferlat	Last week in March	2nd crown
Mrs. F. Judson	1st week in May	1st crown
Charles Bilck	3rd week in May	"
Mrs. J. P. Bryce	1st week in April	2nd crown

You had better commence the propagation of the varieties in the foregoing list without delay, so that the natural break may take place at the proper period. In all cases where the first or "break" bud has not developed by the third week in May the plants should be pinched forthwith. C.

## JACOBINIAS.

THE "Kew Hand List" of tender Dicotyledons includes several plants under the name of Jacobinia which were formerly classed with other families. All, or nearly all, are valuable bright coloured winter-flowering plants of comparatively easy culture. In most of them the flowers are borne in a terminal head or cluster, hence they must not be stopped too much, as a stout stem is necessary in order to flower well. The species in the "Kew Hand List" are

*Jacobinia chrysostephana*, whose rich golden orange blossoms are borne in a terminal crown. Introduced from Mexico by the late Mr. William Bull of Chelsea, in 1870, for some reason or other it almost dropped out of cultivation, till within the last half-dozen years or so it has become very popular. During a dull day in mid-

December I know of nothing more telling than a group of this *Acanthad*.

*J. coccinea*.—A very old plant from South America, with deep scarlet flowers, borne in a terminal head as in many of the *Aphelandras*. It is well worthy of extended cultivation.

*J. ghesbreghtiana*.—Under the name of *Serico-graphis ghesbreghtiana*, this is a very old friend, that bears during the winter a quantity of scarlet tubular-shaped blossoms, not in crowded heads as in most of the others, but in loose panicles. It came originally from Mexico.

*J. magnifica*.—This, which also has been known as *Jacobinia carnea* and *Justicia carnea*, is an old plant. Of *J. magnifica*, the "Kew List" contains the following varieties, some of which have before now been regarded as species, *carnea*, *minor*, *pohliana*, and *velutina*.

*J. Mohinii*.—This species, which is very little known, has orange yellow flowers, produced from the axils of the leaves.

*J. penrhosiensis*.—A popular hybrid between *J. ghesbreghtiana* and *J. pauciflora* (*Libonia floribunda* of gardens), and in general appearance about midway between the two. The flowers of this are bright red, almost scarlet.

*J. pauciflora*.—Long known under the name of *Libonia floribunda*, this is a valuable winter-flowering plant with red and yellow tubular blossoms. H. P.

## NOTES ON LILIES.

## LILIES IN 1905.

(Continued from page 5.)

**L**ILY DISEASE.—I alluded, in some notes in THE GARDEN for October 7 last, to the trouble I again had with that horrible "Lily disease" this summer, but a few remarks here may not be out of place. The fungus attacked nearly the whole of the candidums, also a clump of *tigrinum* Fortunei giganteum, and two small groups of croceum. As on former occasions, I was able by the prompt application of liver of sulphur (potassium sulphide) to arrest the progress of the malady, and to save nearly every bloom, though some of them were smaller and less pure in colour than they ought to have been, and the inevitable removal of most of the stricken leaves did not improve the general appearance of the poor things. When the flowering time was over, and as soon as the stems began to wither, I dug up the whole of the *Madonnas*, soaked them in a weak solution of the sulphide, smothered them in flowers of sulphur, and replanted them in absolutely fresh soil. I am glad to say they are looking healthy and strong, most of them with good tufts of leaves. Next summer I shall begin the watering with the sulphide (1oz. to two gallons and a half of water) as soon as the spikes appear, or even sooner, on the principle that "prevention is better than cure." As far as I can judge the fungicide has no bad effect on neighbouring plants in the beds and borders. But this disease is a terrible and constantly recurring nuisance, and there seems to be no cure for it except the drastic one of digging up the bulbs and consigning them to the bonfire. I have never had the sturdy and healthy croceum affected by it previously. Apart from their temporary severe attack of Botritis, the tall-growing Tiger Lilies (*tigrinum*) were a brilliant success, and a smaller lot of *T. splendens* delighted everybody with their vivid colouring. I have planted another group of the big ones; they flower so late and so freely that one cannot have too many of them. It is to be hoped the disease will spare them in future, but who can tell? To the Lily grower no *contretemps*, no unexpected failure, seems impossible! Lilies of the

SPECIOSUM group were by no means disappointing. Two kinds I had a few years ago

from Mr. Perry, monstrosum and Aozikai, bloomed very finely, and were much admired. I am sorry to say, however, melpomene and album Krætzeri have gradually dwindled away, and may be said to have "gone home." Last autumn I obtained some bulbs of the variety magnificum from Mr. Wallace, but I am going to grow these indoors to start with. I much doubt if the speciosum section can be induced to succeed out of doors permanently, in this part of the country at any rate, though careful planting and a good mulch of old manure certainly seem to prolong their existence. They must be classed with the "unreliables," I fear, of which I consider longiflorum to be the worst, closely followed by

L. AURATUM in all its glory. With regard to this, however, there may yet be a "golden ray" of hope from the bulbs grown from seed and cultivated in this country. Mr. Wallace tells us they have so far proved most reliable, and have given every satisfaction. The bulbs I had from him are certainly very fine, and their behaviour will be anxiously noted. A good word must be said for

L. BROWNII, which was miserable in 1904, but quite up to the average last summer. Most of the bulbs flowered, though none of them had more than two blooms on a stem. Three is my

bulbs, though they bore but a single flower each, grew strongly and made a most striking clump in the Rhododendron bed. I feel doubtful as to the reliability of this fine species out of doors. And now, in sorrow and shame, I must end my long story with the once-honoured name of

L. PARRYI.—For years it waved its yellow standard in the vanguard of the noble army of Lilies, once with thirty-nine perfect flowers on a single stem; now it toils hopelessly along in the rear among the stragglers and camp-followers, with hardly a yellow blossom by which it may be identified. It is very sad, but then Lily-growing is full of sadness, and the best and only remedy for this is to forget the past and start afresh. Acting on this principle, I took the Parryi bed in hand the other day, dug the whole thing out down to the original foundations, carefully relaid the drainage, and planted the bulbs in new soil of a more sandy nature than before. As I anticipated, I found the drainage choked with fine peaty soil, and I think this has had a bad effect on the bulbs, though they looked uncommonly healthy and sound. I hope they will respond to the treatment. I feel convinced now that they like a dry soil and situation, with perfect drainage, only requiring liberal supplies of water at

not last long, but to compensate for this failing a succession is produced from each bulb, giving a somewhat long period of bloom. A large mass of these flowers, grouped in the grass, produces a telling effect in late autumn. That they are also suitable for a border is shown by the illustration, where the flowers stand up boldly. In the bare border, however, they are more liable to injury and splashing by heavy rain than when carpeted by some low growing plants like Sedums, Acaenas, and other kindred subjects, through which the flowers can push their way. Flowering from September to November there are many varieties of this species, ranging from the rosy purple of the type to pale rose; rosy lilac striped with white, and to pure white, as well as double purple and double white forms. These double forms are of greater substance, and the individual flowers last for a considerable time. Planted in rich moist soil where there is perfect drainage, the bulbs increase quickly, and many remain in the same place for years, producing an increased number of flowers annually. For the purpose of increase and for extending groups, the bulbs should be lifted as soon as the leaves have died down. The clusters of bulbs may then be separated, and planted again where necessary, as soon as convenient. A pretty companion for this Meadow Saffron is the dwarfed C. variegatum, with its chequered flowers. It is one of the most distinct in a genus where there are many names but few distinct types. A much bolder flower is the Caucasian C. speciosum, but this does not succeed so well in all places, and is more difficult to establish in grass. It prefers a sheltered place in the rock garden, and even here it does not increase so quickly as C. autumnale. The white form of C. speciosum is very handsome, and when it gets more plentiful will probably find a place in every garden. W. IRVING.



THE MEADOW SAFFRON (COLCHICUM AUTUMNALE).

record so far; it would be interesting to know what other growers consider a good result with this beautiful Lily. L. Brownii leucanthum flowered considerably later than the typical species, but it is a newly-planted bulb, and its lateness may have been accidental, though I hope not. If my other Lilies had done as well as this one, I should indeed have had something worth looking at. Two spikes came up, each bearing a couple of extremely beautiful sweet-scented flowers of the Brownii type, and each furnishing subsequently some fifty or sixty bulbils in the axils of the leaves; these bulbils are now growing luxuriantly in pans in the greenhouse. Very few other Lilies condescended to flower at all in my garden. Superbum and Wallacei both vouchsafed a fair show of bloom, but the Panther Lily (pardalinum) was feeble, and several other sorts never came up at all. Sulphureum had a poor little belated spike, which did not even carry any bulbils. Those I collected in 1903, however, have grown into nice bulbs, and I hope for some flowers from them next year.

L. COLCHESTRENSIS (odorum) may eventually turn out to be a success, but my first bulb, which flowered last year, only had one sickly bloom to two weak stems this summer. Newly-planted

flowering time. In his "Alpine Plants" (a most fascinating little book) Mr. W. A. Clark is clearly of the same opinion (see page 56), and we may yet discover the royal road to the cultivation of this most delightful Lily. With this hope to brighten the dark days of winter I will conclude what I was wrongly about to designate this "feast" of Lilies. A poor feast, indeed, I am afraid; a table set out with magnificent dishes, nearly all of which are empty.

*The Elms, Yalding.*

S. G. REID

## NOTES ON HARDY PLANTS.

### COLCHICUM AUTUMNALE.

UNDOUBTEDLY there are other Meadow Saffrons which, as regards their individual flowers, surpass our native plant, but for general purposes it may be considered the most useful for naturalising in the grass of the wild garden or on banks by the waterside. The individual flowers do

## CORRESPONDENCE.

*The Editor is not responsible for the opinions expressed by correspondents.)*

### MECONOPSIS RACEMOSA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I beg to take exception to the description of this rare Poppywort in THE GARDEN for the 16th ult., page 384. The colour of the flowers, which certainly varies somewhat, includes blue in several shades, which it would be practically impossible to match in delicacy and brilliancy of tint. The rich vivid blue of the flowers is the most striking feature of the plant. When standing in front of a group in flower, the iridescent colour at once strikes the eye, and for a time everything is obliterated. In the most deeply coloured forms a tinge of violet may be seen, which adds, if possible, to the effect; but a crude purple is never seen.

The paler forms cannot be said to even approximate a shade which could be described as palest lilac. This brings to mind the shade of colour known as mauve, but the conception given is as different as possible from the lovely paler blue sometimes seen in flowers of Meconopsis racemosa.

The culture of the Meconopsis is in its infancy, and it would be too much to say that this or that species will or will not grow in such or such a position. I have planted them in a variety of positions, varying from a shady moist peaty bog



PERGOLA IN COURSE OF CONSTRUCTION IN A GARDEN IN SOUTH AFRICA.

to a somewhat dry place in stiffish clayey loam on the open border, and have found

1. In moisture and shade the growth was most luxuriant, the colour of the flowers, especially the blues, were richer, and the flowers lasted longer. In this position the plants are worth growing for the sake of their foliage alone. The long tawny hairs of such species as *M. Wallichii* and *M. paniculata* held numerous crystal dewdrops or globules of rain-water from morn till eve, and sometimes the rosettes attained a diameter of 20 inches or 30 inches. The charming effect of tawny gold-tinted leaves reflected by thousands of dewdrops cannot be adequately described. Briefly, to succeed in the culture of *Meconopsis Wallichii*, and to have specimens 5 feet high bearing several hundred flowers, it is necessary to choose a moist shady position, so that the air is sufficiently cool and moist to prevent the total evaporation of the moisture from the leaves in even the hottest summer day. In moist positions there is some danger of the plants rotting in winter if the soil is too wet and much rain falls overhead.

2 In drier positions the growth was not so luxuriant, and varied in inverse ratio to the amount of sunshine and drought they were exposed to. The beautiful new species, *M. integrifolia* and *M. punicea*, will flower the first year if given a sunny position, but the growth is much smaller, and the plants are quite out of character. Nevertheless, it is possible to grow handsome plants of such species as *M. Wallichii* and *M. paniculata* in the ordinary border if the soil is fairly retentive and the foliage is shaded from the hot sun.

*Meconopsis racemosa* is probably more impatient of excessive wet than any other species. While it would no doubt respond to a careful application of the wet treatment recommended for *M. Wallichii*, there is ample proof that it will succeed admirably under much drier conditions. For instance, the majority of the plants in the Co-operative Bees' Nursery at Neaton were grown in pots plunged in a bed of ashes quite exposed to the sun.

The handsome foliage in the background of the illustration of the *Meconopsis racemosa* on page 384 is that of the rare *Rodgersia pinnata*, a Chinese species with handsome panicles of bright rosy crimson flowers. E. HORTON.

## A GARDEN NEAR CAPE TOWN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Herewith I forward two photographs, one showing the pergola, and the other the position of the pergola in the garden. The columns forming the pergola are 8 feet high and 9 inches in diameter, and were all made by our coloured gardener and myself. We

hope to cover the whole with climbing Roses and Wistaria, which grow well out here. I send the photographs thinking that they may be of interest to those who are contemplating erecting a pergola. FRANK E. CARTWRIGHT.

Eyton, Claremont, near Cape Town.

## COSMOS BIPINNATUS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN for the 16th ult. I see Mr. W. Botting Hemsley, in giving his experience of this plant, asks others who may have grown it how they have succeeded. I have grown it for four years with varied success. The first two years the results were the same as your correspondent's. Our plants had stems as thick as a big broom-handle. The plants were raised under glass, and planted out when strong enough in good deeply-worked soil. In both seasons the frost destroyed them before any flowers appeared, although plenty were showing. The last two seasons I saw some plants in a railway station garden in poor soil. This gave me the hint not to treat them to so good a larder. The following season the seed was sown at the end of March in a cold frame, and the seedlings allowed to develop slowly, pricking them out into shallow boxes in poor sandy soil. They were not moved into the open air until frost was over, when they were taken out of the boxes by cutting them out in squares, with roots intact, planting them in poor soil on a dry, sunny border. Immediately they were established they began blooming, and continued to do so until destroyed by frost. J. CROOK.

## JASMINUM PRIMULINUM NOT HARDY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 326, Vol. LXVIII, I notice that a correspondent is advised to plant this new climber. My experience proves, however, that here on a sheltered wall, and where it did not receive the sun's rays until fairly late in the day, it was by no means hardy; indeed, my plant, which had grown into a very fine specimen, was killed outright by the severe frosts of November, 1904. It is true that these frosts were unusually sharp and sudden for the time of year, and in consequence much other damage was done to shrubs and plants which, as a rule, escape in an ordinary winter. *Buddleia globosa*, about 8 feet high, was killed completely at the

same time, not even the roots escaping. *Solanum jasminoides*, a really splendid plant, had not got on its usual winter wrap, and was killed to the ground, but has since shot up from the roots in all directions. However, my experience with *primulinum* is apparently not different from that of several other people. M. Maurice L. de Vilmorin told me that it had not proved hardy at Les Barres, and that he had lost it. In the Southern Counties it will, I do not hesitate to say, prove a good plant, but in the North and Midlands I question whether it would be permanently safe outside a cold greenhouse unless given protection. Worcestershire. ARTHUR R. GOODWIN.

## SOLANUM JASMINOIDES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In the district of West Somerset the above plant abounds, more especially in the district where Somerset joins hands with the sister county of Devon. Visitors during the commencement of the stag-hunting season always admire the many plants that climb trellises, porches, and even the outhouses. In one little village there are upwards of thirty specimens. The soil there is peaty, and that points to the fact that peat should enter largely into the rooting medium of this plant. One other point worthy of consideration is the fact that the climate is damp; for days together the valleys are enveloped in fog, although, fortunately, at the flowering season the atmosphere is drier. I find that cuttings root quite freely outside in peat and sand, and that we are never troubled with any insect pests, so in a naturally dry atmosphere, I would like to add, keep the syringe going during the growing season. Taunton, Somerset. W. A. SMART.

## THE KITCHEN GARDEN.

### NEW YEAR SAVOY.

OF the several Savoy in cultivation I can recommend this to anyone who has to supply a large quantity of winter greens in the New Year. It is of good shape, medium size, and the outer leaves are of a very dark green, but its chief qualification is its extreme hardiness. I have seen it



GENERAL VIEW OF THE GARDEN OF MR. FRANK E. CARTWRIGHT, CLAREMONT, NEAR CAPE TOWN.

here in the North buried in snow for several consecutive days and yet emerge none the worse, whilst some of the Ulms and Drumheads have blanched and gone to pieces when the thaw set in. I have out New Year Savoy in good condition late in April, and find it simply indispensable. It should find a place in every kitchen garden, whether small or large.

Coatbridge, N.B.

P. S. FOLWELL.

### SPINACH FOR SPRING SUPPLIES.

A few weeks ago Mr. Wythes was advocating in *THE GARDEN* the sowing of Spinach in autumn on a suitable border for picking in the spring. I was not able to endorse what he wrote at the time, but would like to do so now. Twelve months ago last August I made a sowing of Victoria Spinach on a south border with the intention of gathering in October; but although sown early in the month the weather turned very wet and cold, so that little growth was made, and I was disappointed with the picking. However, the little plants stood the winter well, very few dying, and immediately the warmer weather set in they grew away rapidly, and gave a very plentiful supply until the early spring-sown Spinach took their place. I had no idea until then of the hardiness of the round-leaved Spinach, as it is usually considered a summer vegetable, and grown as such where soils will allow. Another point worth noting is if Spinach, i.e., the round-leaved, will endure an ordinary winter on a suitable border or plot, it will give us increased frame space in the early spring months, of which we never have too much at that time of year, for other vegetables and plants coming on.

INVIOTA.

### SELECT VEGETABLES FOR 1906.

(Continued from page 22.)

THOSE who require WINTER SALADS should not omit the Witloof Chicory, and of Endives the large round-leaved Batavian is the most hardy; the Green Curled is less hardy though more finely curled.

**LEUKS.**—The Royal Favourite is a splendid root, and of older kinds the Zyon and Musselburgh are good.

**LETTUCES** are always in demand. For early supplies Golden Queen, Earliest of All, and Golden Ball are very fine; for mid-season Perfect Gem, Favourite, and Supreme, with All the Year Round in the Cos section; Peerless, Superb White, Hicks' Hardy, and Bath for late use. During the past few years great strides have been made with

**ONIONS.**—There are some very fine selections, but they must be well grown. For exhibition Ailsa Craig, Excelsior, Holborn, and Record are among the best; and for keeping, sown in the open, such sorts as Bedfordshire Champion, Brown Globe, and James Keeping are reliable. Those who like variety in vegetables should not omit the useful Mercury, sown in April like Spinach, and for garnishing a good strain of Parsley such as Myatt's or Giant Curled.

**PARSNIPS** of late years have found more favour. The new Tender and True, a smaller root, is delicious. There is also a new Spinach well worth attention; this is the Carter, it is good for all seasons, and a great improvement on the Prickly; the Victoria is also excellent, but not such a large leaf or so early as the Carter. I omitted the Savoy Cabbage earlier in my note, but mention should be made of the new Earliest of All and the New Year Savoy, the first an early small variety, the last-named one of the best late keepers. The Sugar Loaf is also very distinct.

**TOMATOES** are now such favourites that there are many to select from. One, however, should not be overlooked, namely, Sunrise, a most prolific medium-sized, good flavoured fruit; Winter Beauty should be included for late supplies, and the Chiswick Peach for salad.

Of older sorts Ham Green is good, and of the yellow-fleshed a variety that should not be overlooked, is Golden Jubilee, a fine fruit; I consider it the best flavoured of all.

**TURNIPS.**—The Carter Long Forcing, a newer root, is most valuable for early supplies. Snowball is one of the best to follow on, with Red Globe and Golden Ball for late use. Those who like

**VEGETABLE MARROWS** should not omit Improved Custard, a delicious small vegetable; many would like this who do not care for the ordinary varieties.

**POTATOES.**—I have omitted these for various reasons. To enumerate the best much space would be required, and some of the new sorts I am unable to recommend till further trials have been given.

G. WYTHES.

## THE FRUIT GARDEN.

### A GOOD SUSSEX APPLE.

WHAT man is there of this southern county who is not proud of our Winter Queening or Sussex Duck's Bill? Why, to sum up its good qualities is to describe a model Apple. Some of us remember the time when as schoolboys we were attracted in September by its scarlet fruits, or later, in February, were tempted by their perfume to sneak up to the attic, where they were kept, to sample the mellow store. Those days are over, but this fine Apple is with us still. Fortunately, it grows freely in any soil; but is to be specially recommended for cold stiff soils where others fail, and though it fruits freely in a small state, it soon grows into a fine standard.

The fruits, which are of medium size and conical in shape, are for the most part of a bright red, with deeper red stripes, the portion most shaded being pale green, with russet markings. It is one of those convenient Apples, of which the largest can be used for cooking, the smaller for dessert. And though no one cares for a large Apple for the latter purpose, I am inclined to think that in the case of a good dessert variety, size and quality go together, provided both large and small Apples are equally ripened.

The flesh of the Winter Queening is of a yellowish white, but when cooked is brown, not that dirty brown which is one of the failings of Apple Lane's Prince Albert, but a rich golden brown, preferred by some to the pale colour of the Wellington. It is also a good baker, and although it has a brisk flavour requires but little sugar. It is at its best for dessert during February and March. It has often occurred to me when looking over fruit-rooms after the crop has been gathered, and again in early spring, that too many of the large soft autumn Apples are planted, and not nearly enough of varieties such as the one under notice. This, if gathered late, often keeps firm and good flavoured until the end of April.

J. COMBER.

The Gardens, Nymans, Crawley, Sussex.

### CYPHOMANDRA BETACEA.

(THE TREE TOMATO.)

ALTHOUGH "The Dictionary of Gardening," Vol. I, p. 422, describes this plant as a native of South America, it is found growing freely in the Sikkim valleys at altitudes varying from 4,000 feet to 6,000 feet, and is well

known at Darjeeling and its neighbourhood as the Kalimpony Plum. There appears to be no reason for supposing it to have been introduced into India from South America. The parent plant from which the seed was obtained which produced the fruit I sent you would seem to be an Indian species. When visiting Soom Tea Gardens in the latter part of 1903 Mr. J. T. Woodroffe obtained some seed which was sown by me in his garden at Ware, Uplyme, Devon, in February, 1904. The plants which resulted bore fruit last year, and one which was in full bearing was exhibited at the Lyme Regis Flower Show and attracted considerable attention.

The plants were grown in 15 inch pots in the vinery, and were 7 feet to 9 feet high. The flowers were in long pendulous racemes. The fruit, when ripe, was old gold in colour, egg-shaped, from 1½ inches to 2 inches long, and in clusters of six to twelve hanging within the umbrella-shaped head of large glossy dark green leaves, which are purplish when first expanding.

Plants are now being raised from cuttings, which promise to be dwarfier in growth, and consequently more convenient where space under glass is limited. Treatment as regards temperature, &c., is similar to that applied to ordinary Tomatoes.

In its Himalayan habitat the Kalimpony Plum withstands such short frosts as there occur, but it cannot be regarded as hardy even in the temperate climate of Devonshire. The fruits may be used as a salad cut up with Chili, and preserved in syrup are very palatable.

W. F. DARK.

Ware Gardens, Uplyme, Devon.

### GISHURST COMPOUND AS A WINTER DRESSING.

IT may be considered late in the day to note the value of this valuable insecticide, but I do not think a note in *THE GARDEN*—a journal that goes so thoroughly into fruit culture—will be out of place. It should be used as a dressing for fruit trees at this season, and it is quite as good for cleansing plants. It is a safe dressing and soon prepared. It keeps good, and the price is so reasonable when its efficiency is considered. Being composed of a good portion of soluble sulphur it not only kills the numerous pests which attack fruit trees and plants, but is also one of the best remedies for mildew and thrip.

G. WYTHES.

### APPLE BARNACK BEAUTY.

THIS variety is a very late keeping one, being good for use in May, when young Apples are again forming on trees. It forms an excellent standard, the growth of the branches being even and straight. Free bearing, with medium-sized fruits of good form, dark green in colour, streaked with red, it should find a place in all gardens. The beautiful deep red markings become more pronounced as time goes by. The tree succeeds best in moderately rich soil, but it is advisable to top-dress annually until it is well established. Though classed as a kitchen Apple, it is good for dessert, too.

AVON.

### APPLE GOLDEN SPIRE.

WHERE space is not plentiful and an early fruiting bush is required, this variety is a good one to grow. The fruits turn to a rich golden colour several weeks before they are ready to gather, and the aroma is very evident also a long time before they are ripe. They are conical in shape, and are in season from the end of August to December. Even very young trees will fruit freely the first season after planting, but it is better to rub out any flower-buds and



encourage as much new growth as possible during the first year, as early bearing prevents the new growth. If the soil is rich so much the better for the growth of the tree, but the ground should be made firm, and poor soil enriched. It is a valuable kitchen Apple.

Bournemouth.

AVON.

## ORCHIDS.

### ORCHIDS AT CHARDWAR.

**C**HARDWAR, the residence of Mr. G. F. Moore, is situated on the outskirts of Bourton-on-the-Water, a picturesque village nestling in the Cotswolds. Among horticulturists Bourton is famous for the collection of Orchids

magnificum, with bold shapely flowers, a decided chestnut-red tint pervading the petals and pouch, the dorsal sepal being thickly covered with rounded spots deep red-brown in colour. Dark and light forms of *C. i. Wallacei*, *insigne* Mr. Godseff, Henry Elwes, Greenbank var., *punctatissimum*, Monk's-hood var., the name alluding to the formation of the upper dorsal, which somewhat resembles a monk's cowl in shape; *Perfection*, Caledonia, Amy Moore, *berryanum*, Admiral Togo, *Westonbirt* var., *maculatum*, a heavy almost black spotted form; *Cobra*, bearing some resemblance to *magnificum*, but quite distinct, and *Sylhetense giganteum*, which received an award of merit last year; the whole stock of this variety is at Chardwar. This variety is far superior to the typical *Sylhetense*, and that is one of the most

*montanum magnificum* and *leeanum giganteum*; curiously enough, though, the *insigne* parent is among the dark forms. The hybrid, which secured an award of merit at the Royal Horticultural Society's meeting of the 5th ult., is a dainty shade of green, the broad dorsal having a wide margin of white, on which violet tinted spots are centrally placed, while on the green area they assume a brownish shade. The whole flower is of a light but attractive colour, and considerably above the average in size. *Blanche Moore* is probably derived from similar parents, but partakes strongly of the *insigne* parent. *C. vexillarium superbum*, the finest of *vexillarium*, and the charming *C. Nandii*, call for mention, also a fine specimen of *C. Memoria Mcensii*, with a dozen flowers open, the rich magenta-toned dorsal sepal displayed to the full, and giving an effect with which single-flowered plants cannot be compared.

Batches of *Oncidium Rogersii*, *Odontoglossum Uro-Skinnersi* and *Vanda cœrulea*, show how well Orchids are grown here. Mention may also be made of a large number of plants of *Dendrobium Phalaenopsis schröderianum*, which were well grown and profusely flowered, and exhibit a wide range of colouring from the pure white of *hololeuca*, to a deep claret-purple. Tall growing *Epidendrums* of the *Obrienianum* section are grown both for use and ornament in suitable positions. A rare collection of *Cattleyas*, *Lælias*, and *Lælio-Cattleyas* are also grown, while a large house is given over entirely to *Odontoglossum crispum* and its varieties. Mr. Page, the grower, must be congratulated upon his success.

ARGUTUS.



CYPRIPEDIUM INSIGNE VARIETIES IN THE GARDEN OF MR. G. F. MOORE, CHARDWAR, BOURTON-ON-THE-WATER, GLOUCESTERSHIRE.

formed by Mr. Moore. Some five or six houses are devoted to Orchids, which include *Odontoglossums*, *Cattleyas*, and *Dendrobiums*; but *Cypripediums* are the feature, and among the *Cypripediums* are remarkable plants of *C. insigne*. Of these some 250 distinct and beautiful varieties might be enumerated, including specimens of *C. i. Sanderæ* and *C. i. sanderianum*. The size and strength of the specimens, and the number and beauty of the varieties, will doubtless be remembered by visitors to the Horticultural Hall on November 15, 1904, when a group of Orchids, occupying the entire end of the hall, was staged by Mr. Moore. For this group the large gold medal of the society was given, and the Lindley medal was recommended for culture. At the present season *C. insigne* and its varieties, together with the majority of the hybrids from them, are actually at their best, but even when out of flower the plants at Chardwar are pleasing, particularly to the expert.

It is impossible to mention all the many forms in flower during a hurried visit paid the first week in December, but among the more noticeable varieties of *insigne* were *Harefield Hall*, a remarkable example of culture with seven flowers; *montanum*

popular flowers for market, and a favourite with Parisian and Continental florists. *Kathleen* and *Agathæ*, two very handsome forms, were both conspicuous in last year's group, and near them were *atratum*, *Bronze King*, and *Black Prince*, all dark highly-coloured polished forms, and two notable specimens of yellow *insignes* in *Dorothy* and *Laura Kimball*, *breezianum magnificum*, a handsome form, the dorsal carrying its colour in an unbroken mass; the flower had recently been cut from a plant of the rare *C. i. bohnhoffianum*. The basal half of the dorsal is deep olive-brown tinted with red, with a metallic lustre, zoned apically with soft primrose, faintly tinged with green, while the apex is pure white. Other forms noted were *formosum giganteum*, *Commander Waters*, *expansum*, *Darkness*, *Cygnæ*, &c.

*C. leeanum*, its varieties, and a number of hybrids from *leeanum* and *insigne* form a group little less noteworthy than the *insignes*. *Leeanum giganteum*, *virginale*, *Purity*, and *magnificum* were well in evidence, but ranking above them was the variety *clinkaberryanum*, which, except *leeanum J. Gurney Fowler*, is still the finest variety of this popular hybrid. With the *leeanums* was *Cypripedium F. H. Cann*, a hybrid between

of the finest of all pure white *Roses*, and produces a mass of blossom that few other sorts do. *Rose Mme. Plantier* belongs to the class of Hybrid *Noisettes*. One grower classed it as "the finest all-round white *Rose* grown." We have seen bushes and standards of this variety from twenty years to thirty years old, and they were like huge snowballs when in full bloom. The only drawback is that, being a summer-flowering variety, the grand effect produced is not enduring. Nevertheless, it is a *Rose* that everyone should possess. By very sparsely pruning this variety an immense bush may be speedily formed. It can be freely increased by cuttings.

### SEASONABLE WORK.

**PROTECTING TENDER ROSES**—The mild December has almost caused us to forget about protecting our Tea *Roses*, but we may have severe weather even yet, and it behoves us to earth up all Tea and China *Rose* beds, also those Hybrid Teas which come nearer to the Teas than they do the Hybrid *Perpetuals*, such for instance as *Kaiserin Augusta Victoria*. A good earthing up around the base of each plant with burnt earth, or burnt garden refuse for preference, is almost in itself a sufficient protection, but evergreen boughs or Bracken Fern or Gorse should be at hand to place among the branches in case of emergency.

## THE ROSE GARDEN.

### ROSE MME. PLANTIER.

**A**S the accompanying illustration well shows, this is a most vigorous and free-flowering *Rose*, the flowers are pure white, full and very beautiful, and they are most abundantly produced. It is one

Where one has a lot of standard and half-standard Tea Roses, it is a good plan to lift them all and heel them in under a north wall, with a covering over them such as thatched hurdles if weather proves very severe. When transplanted late in spring the new growth escapes the May frosts, the result being a fine first display of bloom, with wood uninjured by the May frosts.

*Sowing Rose seed* is a very fascinating part of a Rose grower's work. Amateurs miss an opportunity of adding additional charm to their gardens by not having a number of seedling Roses on their premises. Even if such seedlings possess no great merit there are sometimes some beautiful single and semi-double sorts raised that would be delightful for decorative work when out. One must be sure the seed is fertile, and to secure this it should be produced under glass or on walls outdoors. The seed is sown as soon as ripe, or at the present time. The pods or the seed must never become dry, and it is well not to burst the pods until we are ready to sow. Prepare some good compost of equal parts sifted loam and leaf-soil with a good sprinkling of sand. A plentiful supply of crocks in 3-inch or 4-inch pots should be prepared, then fill up with compost. Plunge the pots in a larger pot, putting in the vacant space some rotten cocoanut fibre or very short manure. This is done in order to prevent rapid evaporation. Place the pots in a greenhouse near the glass, and the seedlings should appear in about

three months, although some will not come up until nine and even twelve months have elapsed. Do not sow too thickly then it will not be necessary to prick off the seedlings, but when they are a good size, say, in about two years' time, they may be transplanted outdoors in May or June when the soil becomes warm.

*Roses under glass* must be gently forced. I do not advocate a strong heat at this season of the year, but it should be steady. The stronger the Roses break the finer will be the blossom. A little bottom-heat such as leaves provide is most helpful to plants just now. This would be far better than a strong top-heat. From 55° to 60° by day is ample, allowing this to drop 5° or 6° at night. Avoid excessive moisture just now. A slight damping of the paths and steaming the pipes is sufficient until the sun gains more power. Of course red spider must be watched so that when the foliage develops fast the syringe must be employed skilfully beneath it.

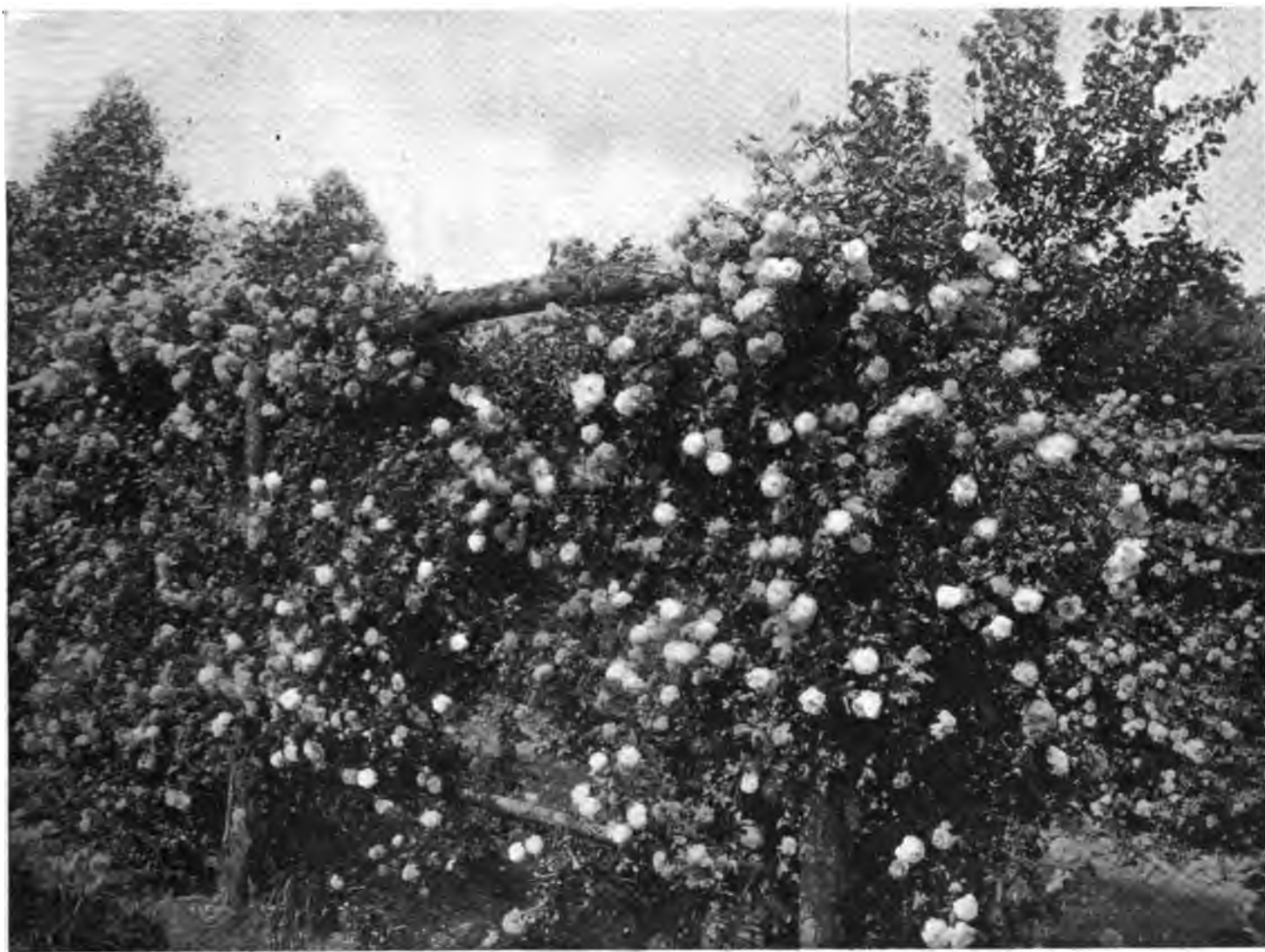
*Rambler Roses* grown in pots should be pruned at once if not already done. Reserve as much as you can of the well-ripened shoots of last summer, and twine them around four sticks unless it is desired to grow them as pillars. A pinch of some good artificial manure should be given early, and, of course, later, as trusses of bloom are seen, the plants will require liquid manure once or twice a week. If a number of Crimson Rambler were potted up in the autumn

and pruned back to a foot at the time of potting, such plants should be brought in now and given a gentle bottom-heat. They make lovely decorative plants if grown on gently. Dorothy Perkins, The Farquhar, Perle des Neiges, Blush Rambler, Waltham Rambler, &c., are equally as useful, so also is Mme. N. Levavasseur, the "Baby Rambler" as our American cousins have christened it. Now is a favourable opportunity to have land trenched ready for new plantations of Roses in the spring, or if the land has been trenched recently then ridging it up will cause it to be in good condition for planting in March and April. The wind and frosts acting on this ridged land are of inestimable value to all heavy soil.

*Labelling Roses* should be done now if this has been neglected. The pleasures of a Rose garden are much enhanced if labels are easily found. The "Acme" label is perhaps the best and most enduring.

*Stakes* for pillar Roses should be sharpened and tarred ready for use, and shorter ones prepared ready for supporting standard Roses as soon as they have been pruned.

*Planting Tea Roses* against low walls is now largely practised. A quiet time like the present could be used in getting out holes 2 feet 6 inches deep and 2 feet over and filling up with good soil. The plants can be set out as late as April. P.



ROSE MME. PLANTIER.

## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**B**EDDING BEGONIAS.—*Begonia gracilis luminosa* will be a very useful addition to the small-flowered dark-foliaged section which are now so popular for bedding. *B. semperflorens compacta* and *B. semperflorens Zulu King* are good bedding varieties of the same class, which may easily be raised from seeds now in heat, the plants will be large enough to plant out in June if helped on in heat. The seeds are very small, and the soil should be made firm and watered with chilled water through a fine rose. Just previous to sowing cover lightly with sand, and the pots or pans should be covered with squares of glass. We generally stand the pots of very minute seeds in pans and water from below by placing water in the pans.

*Blue Flowers in Winter.*—There are none too many of these to be had in either stove or greenhouse at this season of the year. In the stove *Eranthemum pulchellum* makes one of the brightest of plants, producing a profusion of its deep blue flowers in constant succession for a long time. True, the blue flowers do not show up well at night, but, nevertheless, by daylight they are exceedingly pretty, making a beautiful addition to a stove in conjunction with *Poinsettias*. It will thrive well in a damp position, and the flowers last a fairly good time when out, as the advanced buds will open in succession to the expanded blooms.

*Some Good Chrysanthemums.*—In the variety *La Gracieuse* we have a *Chrysanthemum* that has many good points, and is sure to be heard of. It grows quickly, and is so easily grown that everyone should try it. The flowers are clear pale rose, very delicate, and attractive. Even comparatively weak shoots produce really good blooms, a thing which few other sorts do. In consequence of their rapid growth the plants easily retain their healthy green foliage quite to the base. A correspondent of *Möller's Deutsche Gärtner Zeitung* considers this *Chrysanthemum* to be one of the finest he has grown. Two *Chrysanthemums* specially recommended in the same journal for growing for cut flowers are the varieties *Parisiana* and *Mlle. Lucie Duveau* both bearing white flowers. *Parisiana*, if propagated in March, and the plants are put out at the end of May, produces a profusion of beautiful white flowers in September and early October. This variety is perfectly hardy; it may be grown in pots, and when the cold autumn weather arrives should be given the cover of a cold frame. *Mlle. Lucie Duveau* can also be grown well by being planted out as advocated for *Parisiana*, or it may be potted early in September and placed in the greenhouse for flowering. If the weakest shoots are thinned out the plants will produce some excellent blooms. Both these *Chrysanthemums* should be grown where cut flowers are wanted in the autumn.

*The White Lily.*—Where it grows and flowers well there is no better garden plant than *Lilium candidum*, the White or Madonna Lily as it is popularly called. In many gardens, however, it is, unfortunately, a failure and subject to the dreaded disease, which is so difficult to eradicate. I know of several small gardens where this Lily was planted in a narrow, sheltered border facing east in ordinary well-drained garden soil. Sand was mixed with the soil at the time of planting, and needless to say, the bulbs have not been disturbed since. They are still in the best of health. Their success is attributed to the fact that the bulbs

were healthy in the first place. They are in moist soil, partial shade, and are left undisturbed from year to year. Others may give this Lily precisely the same conditions and treatment, and yet have very unsatisfactory results, and thus prove, once again, how difficult it is to lay down any hard and fast rule as to the culture of this beautiful Lily. The points mentioned above are, however, important.—T.

*Gooseberry Cuttings* may now be inserted by selecting from the prunings medium-sized and straight shoots about 18 inches long, trimming off 6 inches from the point of the shoot and all the lower buds, leaving four good buds intact at the top end of the shoot. These can be inserted in lines about 6 inches deep, allowing 18 inches between the lines and 6 inches between each cutting, selecting a moist and partly shaded position. The soil should be made firm about them, and the different varieties labelled with stout labels that will not decay readily or be easily knocked out of their places. Where caterpillars and red spider have proved troublesome, it is a good plan to scrape away the surface soil from under the bushes and syringe the branches with a mixture of fresh slaked lime and soot, or a dusting of fresh lime and soot when the branches are damp. Where the bushes through age may be in want of a stimulant, some reliable artificial manure may be lightly forked in and a little fresh soil added to replace that scraped off, or, better still, a good mulching of farmyard manure. The spade should never be used among fruit bushes.

*Propagating Vines from Eyes or Buds.*—Vines are easily propagated from buds or eyes at this season. There are other methods, but they are not superior in any way to the single bud system. I once planted a small house with cuttings rather more than a foot long. The cuttings were cut close below a bud at the base with a sharp knife so as to make a clean wound. Each cutting had three buds, and were planted in a newly-made border, only the uppermost bud being exposed. No heat was used until the buds broke into growth, and then the usual course of warm Vine culture was adopted. The Vines made fairly good growth, but not better than when the buds

were started in turves, and planted out when some growth had been made. Planting the eyes in turves 5 inches square, by scooping out a small hole and thrusting the eyes into the cavity, made firm with some light rich sandy soil, packing the turves close together in boxes about 3 feet long and 18 inches wide. We use these boxes because they are easily moved about. The boxes are placed in a close frame for a time where only the frost is kept out, afterwards heat is applied. We leave about 1½ inches of wood to each eye, the bud being in the centre. The wood on the underside is cut in a slanting direction to give more space for the emission of roots. A good slice of wood is necessary to support the buds whilst roots are forming, which is rather a slow process at first. Not much water will be required till roots form, but the soil must be kept reasonably moist. The buds may burst without root action from the force stored up in the wood, but there will be no real growth till roots are forming.

*The Roots of Vines.*—Grape Vines are very tenacious of life. They are often treated badly, but bad treatment seldom kills outright. I remember a case which came under my notice long ago when in the course of some alterations a houseful of Black Hamburgh Vines had been grubbed up and thrown on the rubbish heap, where they lay some time exposed. In the course of the building operations a new forcing house had been erected, and in this house was a bed of tree leaves in a state of fermentation. The gardener took the best of the old Vines, and, after doing the necessary root pruning, planted them in some open crates and plunged them in the bed of leaves along the front of the house. The growth, both of roots and branches, was remarkable. The crop was not heavy, as many of the bunches showing were removed, but the size of the bunches and berries and their finish was remarkable. This was due to the warmth and nourishment received from the leaf-bed, into which strong roots had worked in all directions. I had noticed the effect of a leaf-bed upon the roots of Vines long before and often since, and when Vines are in a bad way at the roots and there is no time to lift the roots and make a new border, a dressing of Thompson's or some other good manure forked into the

THE MADONNA LILY (*LILIAM CANDIDUM*).

surface, and on this a leaf-bed made deep enough to produce steady fermentation, the roots have come up to find out what was going on, have found the support they needed, and have taken a new lease of life, to the manifest advantage of the crop.

*Pink and Scarlet Thorns.*—There are no more handsome trees for park planting than the bright-flowered Thorns set in open groups, breaking out occasionally into single specimens wherever colour is wanted. Thorns associate well with other trees to fill in the foreground, or in the open glades where taller trees are inadmissible. The ground should be well broken up before planting takes place, and the trees securely staked and properly guarded from cattle or sheep. The trees should be pruned back for several years till the heads are well furnished with branches, and then left to grow naturally. I am acquainted with a park that was planted in this way some thirty years ago, and now, when the Thorns are in blossom, people go for miles to inhale their fragrance and enjoy their brightness. From the result of early pruning the trees are now perfect pictures of spreading, weeping growth. There are a few double white and scarlet varieties, but the greater part are single-flowered.

*Rhododendrons and Lilies.*—It is useless planting Rhododendrons or Azaleas in a limestone or chalky soil, but where lime is not in excess peat is not an absolute necessity for them. Of course, they grow luxuriantly in peat, and so they do in many places in the Midland Counties over the old red sand stone, in beds of alluvial soil on the banks of lakes and rivers, and in old woods well stored with vegetable matter from the decay of leaves, &c. When planting many years ago in Sussex, where the natural subsoil was heavy clay, by digging out the clay, burning some of it, and mixing part of the burnt material with old turf, leaf-mould, old cow manure, and sand, we found groups of Rhododendrons and Azaleas grew freely and flowered well, and the groups of Lilies planted among them flowered well also. The expense of preparing the beds was not great, as the materials were at hand.

*Groups of Hollies.*—I have often wondered why planters neglect the Hollies so much. Those who do not know the better kinds of Hollies have no idea how effective they are either in groups or occasionally as single specimens on the lawn or in the front of the shrubbery. For hedge planting the common green prickly-leaved Holly is best, and makes the best fence, but young plants from 1 foot to 3 feet high are the most suitable. I have seen Holly hedges which have been obtained from sowing seeds in February, after they have lain in a heap of sand for a year to soften the outside. It is a slow process, but good hedges result. The best time to transplant Hollies is just before growth begins in May, though young plants may be moved at any time if the work is done carefully. There are no means of distinguishing the sexes of Hollies till they bear fruit or flowers. The better kinds of Hollies are usually grafted on the common green kind, but longer lived trees are obtained by layering or striking cuttings under glass in September. This process is a slow one at first, but when the cutting is rooted growth is rapid, and there is no fear of later failures. The cuttings should be selected from the upper part of the trees.

*Winter Cherry.*—How very useful and attractive for arranging in vases are the stems of the Winter Cherry (*Physalis Franchetti*), bearing an abundance of their brilliant scarlet calyces or "lanterns." They need no water, and the calyces do not lose their bright colour for months. If some sprays of *Honesty* are arranged with them the decorative effect is improved. I know of nothing more useful or more attractive for

brightening a room during winter. They need dusting occasionally, but that is all the attention they require.

*A Valuable Room Fern.*—One of the Ferns that almost always grows well in a room is *Pteris tremula*, large plants of which may be bought for sixpence. Great care should be taken of Ferns when they are first bought, for often they have been grown in a much warmer atmosphere than that of an ordinary room, and consequently, if placed in a draught or near the window, the young fronds quickly wither and eventually die. If the Fern is bought at this time of the year, it should be kept in a warm corner of the room for a week or two until it has become inured to the cooler atmosphere. When once it has done this there will be no more difficulty with it. In the winter this Fern does not require a great deal of water, but in summer the soil quickly dries, for it is usually full of roots, and probably needs water every other day. In hot weather it is advisable to stand the pots in which Ferns are grown in saucers of water, but at this time of year this is not necessary.

*A Good Room Plant.*—One of the most ornamental and at the same time one of the easiest to grow, if only ordinary care is taken, is the Norfolk Island Pine (*Araucaria excelsa*). I know of a plant that has been growing in the window of a room for five or six years. Each year it develops a whorl of its elegant leaves, while retaining the old ones quite down to the base of the stem. This plant is not so susceptible to cold as some of the Palms are. Providing it is potted at first in good turfy soil, containing some silver sand, and watered only when the soil appears to be getting slightly dry, it will thrive. Of course the soil must not be allowed to become quite dry before being watered; this would cause the same result as keeping the soil continually wet, namely, the loss of the lower leaves.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**H**ARDY FLOWERING DECIDUOUS SHRUBS having had all dead flowers and seed-pods removed, and all weak growths cut out after flowering, very little pruning will now be necessary beyond thinning the growths so as to admit plenty of light and air. One often sees Laburnums, Spiræas, Weigelas, and Lilacs with seed-pods left to ripen and decay, giving the plants an untidy appearance, and also exhausting them. Any such shrubs should now be pruned. Old exhausted wood and all weak growths should be removed. Shrubs such as *Deutzias*, *Weigelas*, and *Guelder Roses*, that have a tendency to push up strong growths from the base, should be encouraged to do so; but in the case of Lilac suckers and bottom shoots should be removed. After all prunings are gathered up, the shrub borders or beds should be mulched liberally with stable manure rather than dug, which is generally labour wasted and injurious, mutilating as it does most of the valuable fibrous roots.

**RHODODENDRONS** and all kinds of *Azaleas*, *Kalmias*, *Andromedas*, *Pernettyas*, hardy *Heaths*, and *Menziesias* would be greatly benefited by a surfacing of fresh peat or leaf-mould; these plants being surface rooting, it is of importance that this should be done annually.

**YAW HEDGES** frequently present a rusty appearance at this time of year, which points to soil exhaustion. If given a liberal top-dressing of good farmyard manure they will quickly respond by returning to a beautiful deep green colour. Collect all prunings of trees and shrubs,

with fruit tree prunings and all the available wood into a suitable place for burning. The wood ashes should be stored away in a dry place for future use in the flower garden.

**ANEMONES** of the *St. Brigid*, *fulgens*, and *coronaria* section that were planted in September and October, owing to the open weather experienced during the close of the year, have been growing freely, and will soon be giving us a few flowers. A few blooms of the *St. Brigid* were picked here on Christmas Day. Another batch of roots which have been kept dry may now be planted. A rich sandy loam suits this plant admirably. It requires to be taken up every year and thoroughly dried. It is a good plan to make three plantings, at intervals from September to March, to give a succession of bloom. Give them a change of soil, as if planted in the same bed for two years in succession they always deteriorate. The *Aldborough Anemones*, or what are known as *Nelson's variety of fulgens*, are stronger than the type. The flower-stems grow to the height of from 18 inches to 2 feet.

G. D. DAVISON.

*Westwick Gardens, Norwich.*

### ORCHIDS.

**CYPRIPEDIUM INSIGNE** AND VARIETIES.—From an amateur's point of view no Orchid is more pleasing than *C. insigne* and its numerous varieties. The plants are easily sown, and last in flower from the beginning of November until after Christmas. Now that the flowering season is over they should be put in order for the growing period. Some plants which were repotted last year will only require the surface compost renewed. This should be done by first pricking out the old compost between the roots with a pointed stick, taking care not to injure any during the process, and then resurface with fibrous peat and moss. Plants that need repotting should be pushed out of the pot with a stick put through the hole at the bottom. I find less injury is done to the roots by this method than by turning them out in the usual way. If the compost in which they have been grown is more than one year old, shake it away from the roots, and replace it with new compost, working some crocks vertically between the roots before fixing the plant in its new pot. The compost should consist of two parts fibrous loam broken into lumps about the size of a walnut, and one part fibrous peat and chopped sphagnum moss. Small crocks and coarse silver sand should be used freely during the process. When preparing the pot always select a clean one, and place one large crock at the bottom and a few smaller ones over it; about as many as one would use for a *Geranium* will suffice. Then place some of the rough material over them, and add some small crocks and sand. Then the plant should be put into position and the compost worked around the roots, and more small crocks and sand added to ensure good drainage. Prick in a few heads of moss on the surface, which when finished should be just below the rim of the pot. If large specimens are required divide the growths into three or more clumps according to the size, and leave a space in the centre. This will encourage new growth from the old back ones, which otherwise would have decayed.

**TEMPERATURE.**—For some time after the plants have been repotted the temperature should not be allowed to fall much below 60°, but late in the year, when the buds are showing, the cooler they are kept within reason the better, as this tends to give the flowers a better colour.

**WATERING.**—For about two months the newly-potted plants will require careful watering, for if overwatered at this period the roots will decay, and the result will be a failure. Careful observation is necessary because the new surface material often appears dry, while underneath the compost is moist enough to last another day or two; just sufficient water should be given to keep the compost moist.



CYPRIPEDIUM LEWNUM, *C. Aotseu*, *C. nitens*, &c., are hybrids of *C. insignis*, and are very useful because they come into flower when *C. insignis* is passing out of flower. They require much the same treatment as previously advised.

*C. FAIRIEANUM* promises to be very plentiful, and I find this does well in the *C. insignis* house with rather less loam in the compost, otherwise the treatment is the same. The same applies to *C. Niobe*, *C. vexillarium*, and *C. arthurianum*, which are hybrids of *C. fairieanum*; also to *C. Boxalli*, *C. purpuratum*, and many others too numerous to mention.

W. H. PAGE.

Chardwar, Bourton-on-the-Water, Gloucester.

## FRUIT GARDEN.

**TRAINING, NAILING, AND TYING WALL TREES.** This should be started soon after the pruner has got to work. The principal point in training fan-shaped trees is to regulate and lay out the main branches first, following with the minor branches and young wood. If this is done properly, each branch and shoot will point in an outward direction. Allow plenty of room in making ties, renewing shreds where necessary. Nothing is equal to the Willow for tying the stronger and heavier branches to the walls. If twine be used, insert a piece of shred or other protection where extra pressure has to be used in bringing the branch to its proper place. Shreds half an inch wide are suitable in most cases, and they should be cut into lengths to suit, doubling in one of the ends, and fastening neatly with the nail. The young shoots must be pulled into their position by the shred, and not pushed upwards or downwards with the nail. The nails should be arranged alternately, as near as possible, on each side of the shoot. Remove all old nails and shreds not in use, gathering them into a box or basket, to be afterwards burnt. The nails may be used again.

**IN TYING TO WIRIS** the same precautions as to slack ties must be carefully observed. Do not place a tie to the tip of a young shoot to draw it out straight, or it may be strangled, but put a twine, stretching from wire to wire, and fasten as if to the wire. Pass the tying material twice round the wire before securing the branch or shoot. Start on that side of the wall least exposed to the wind.

**APRICOTS**—These ought to be pruned with a view to keeping the spurs as short as possible, as the nearer they are to the wall the better. The branches of Apricots have a tendency to die off, and it is generally admitted that this is owing to an excess of vigour in the growth. It would be well to avoid this by timely root pruning or replanting, adding to the soil a quantity of lime rubbish from an old building. Few trees benefit more from a surface mulch of manure than Apricots. Where the trees are subject to gumming or branch perishing to any great extent it is advisable to procure young stock from seed rather than from grafting or budding. The variety Moorpark is generally admitted to be the best all-round variety, as well as a suitable parent from which to rear seedlings.

**FORCING STRAWBERRIES**—Successional batches of these should be introduced periodically into the structures where the conditions are favourable for a gentle start into growth, remembering that as the season progresses fewer plants will meet the demands for fruit, and that the time necessary for the fruits to mature will become gradually shorter. Select the plants with the best developed crowns, leaving the weaker ones for later forcing. The first condition necessary to success is a well-rooted, well-developed crown, and with such plants no bottom-heat is required. A temperature ranging between 45° and 55° will do to begin with, gradually raising it till the plants begin to show flower, when they should be removed to a light and airy structure, and kept near the glass, in a temperature of from 55° to 70°. Care should be taken at this point not to allow the roots to become too dry, or a bad set will be

the result. The opening flowers should be brushed over with a camel-hair brush to fertilise them, and when set thin out the fruits, leaving not more than six of the strongest to each pot.

**PINES**—Ripening fruit should be kept dry at the roots. If it is necessary to keep the ripe fruits over for any considerable time, it is best to cut them as soon as ripe and hang them up in a cool and dry fruit room. Look over the stock and select the most promising plants for fruiting from May onwards; only those with their growth well matured and showing thickening at the collar should be chosen. Plunge them to the rim of the pots in the bed of the fruiting house, adding some fresh plunging material. Give the plants a good soaking of water, and keep the soil moderately moist till the plants show for fruit. A bottom heat of 85° and an aerial temperature of 70° will be found satisfactory, giving a little ventilation when the temperature rises to 80° with sun heat. Maintain a moist atmosphere.

THOMAS WILSON.

Glamis Castle Gardens, Glamis, N.B.

## KITCHEN GARDEN.

**MUSHROOMS**—Fresh horse manure, with the greater part of the litter shaken out, is the best material for making new beds. Collect the manure each morning until enough has been got together to make the bed, putting it into a shed, or any place where it can be protected from the rain. Then pile it into a heap to ferment, and to get rid of the rank ammonia, turning it at intervals of two or three days until in a proper condition for making the bed. If allowed to remain too long before turning, too great a degree of fermentation takes place, with a corresponding loss of ammonia. The bed should not be less than 1 foot in depth at the front, with a rise towards the back of about 1½ inches, and I believe that better results are obtained from a sloping bed than from a flat one. Beat or tread the material firmly together, and when the bed is made the required size, leave it until the heat has declined to about 80°, when it may be spawned. Break the spawn into pieces of 1½ inches square (very small pieces or crumbly bits should be avoided), and insert them in the bed to a depth of 1½ inches, in lines 7 inches or 8 inches apart, and 6 inches apart in the line, covering the spawn with the material taken out. I prefer inserting the spawn in lines, especially in the case of big beds, as then no part of the bed gets missed. Cover with a good loam—which should have been previously warmed—to a depth of 2 inches, making it firm with the back of a spade. Mushrooms may be expected in from four to six weeks after spawning; it depends in a great degree on the warmth of the bed. Beds in bearing should not be allowed to get dry before watering with tepid water. A handful of salt to 2 gallons of water acts as a stimulant to beds showing signs of exhaustion. The temperature of a Mushroom house should not exceed 60°, with a minimum temperature of 50°. Syringe the walls and floor twice daily.

**RHUBARB**—Where the supply of Apples is running short forced Rhubarb will soon be in demand. If not already done lift suitable clumps, exposing to frost if possible. A Mushroom house is a good place for forcing Rhubarb; I have also used old sugar-barrels cut to a size to allow of their being placed under a stage in a warm house, and covered over to keep away the light, covering the roots with leaf-mould or old Mushroom-bed material.

**CHICORY AND DANDELION**—Chicory and Dandelion roots may be lifted and placed in a warm dark corner or in the Mushroom house. Where salads are in great demand the young leaves are much appreciated.

**ONIONS**—Where large Onions are required sow now some Ailsa Craig or any other approved variety in seed boxes, using a light compost and placing the boxes in a temperature of about 55°.

**BROAD BEANS.**—Broad Beans for planting out in March may be sown now in pots of 5 inches diameter. Beck's Dwarf Green Gem I find very suitable for this kind of work. French Beans in bearing will require plenty of warmth; see that the growths are supported in time by twigs, and syringe twice a day.

J. JAQUES.

Bryanston Gardens, Blandford.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**GLADIOLI (M. B. A.).**—Whether the Gladioli will pass safely through an ordinary winter depends somewhat upon how deep they are in the ground; if 5 inches deep a good covering of the leaves would meet the case. Frequently they suffer through the old stems. These, if cut flat at the ground level in the ordinary way, form a ready means of wet reaching the newly-formed corm. By twisting the old growth round and first laying it upon the soil over the position occupied by the roots you will thus safeguard them. Then you may put on a good covering of the leaves, and if you have these in plenty we would certainly prefer them to the seaweed, especially if this be but freshly washed up. Whether the salt is likely to be harmful depends entirely on its amount. But if you first employ leaves there will not be the necessity for a large addition of the seaweed, the salt from which would then scarcely reach the roots in question.

**SWEET PEAS (T. W.).**—Sweet Peas are quite hardy, and you might have sown them outside last autumn. They would then have flowered earlier than those sown in the spring. You should have trenched the ground last autumn, putting in plenty of farmyard manure. Still, you may do this at any time now providing the land is not too wet. If it is very wet, you must wait until it gets drier. Sweet Peas are usually sown out of doors in the latter half of March. You would gain nothing by sowing earlier, for the ground is cold. As you particularly wish to have some early ones, you had better grow them in large pots or tubs in the greenhouse. The soil must be rich, for the Sweet Pea is a gross feeder. Sow the seed singly in small pots, and keep them close to the glass for a few weeks after they germinate, so as to make them strong and sturdy. See that the pots or tubs are efficiently drained, cover the drainage with rough turfy soil, and fill the pots to within an inch or two of the rim with half turfy loam and half well-decayed farmyard manure, thoroughly mixed. When the seedlings are, say, 3 inches high, plant them in the tubs about 3 inches apart. Give them all the light and air possible—both are most important; the Sweet Pea is hardy. You would need to grow a large quantity to make it worth your while to send them to market; if you have only one greenhouse, it probably would not pay.

In addition to the sorts you have, grow Henry Eckford, Bolton's Pink, Dorothy Eckford, David R. Williamson, and Miss Willmott.

**THE TWELVE BEST SWEET PEAS** (*Sweet Pea*).—Queen Alexandra, Henry Eckford, Helen Lewis (Coles), John Ingman, Mrs. Hardcastle Sykes, Dorothy Eckford, Romolo Pizzani, Hon. Mrs. E. Kenyon, Black Knight, Lady Grisel Hamilton, Countess Spencer, and Evelyn Byatt. Twelve good exhibition sorts are Scarlet Gem, Dorothy Eckford, Romolo Pizzani, Countess Spencer, Black Knight, Hon. Mrs. E. Kenyon, Lady Grisel Hamilton, King Edward VII., Miss Willmott, D. R. Williamson, Jeannie Gordon, and Mrs. Walter Wright.

**IVY FOR COVERING HOUSES** (*H. E. S.*).—The wood extending trellis, usually of Swedish make, is in several sizes, and an average price in England is about 10d. per foot super when closed. Among the larger stock sizes are those measuring 2½ feet by 6½ feet and 2½ feet by 7 feet, these when open covering rather more than 16 feet and 17 feet respectively. It is quite possible that prices and sizes may vary. Such a trellis would be quite suitable for the Ivy, which will not cling satisfactorily to the cement walls. The Ivy should be liberally planted at the base of the building so as to obtain its start from the ground.

**VIOLET PLANTS DYING OFF** (*E. H. S.*).—For your cold frame to rest upon 1 foot deep of manure will be sufficient. The base of manure should be larger than the frame all round by 1 foot. The manure used should be fresh and of a strawy nature (not decayed), and if leaves are available add a good proportion to the heap, mixing well together and treading the heap firm before the frame is placed on. Next have ready some turfy loam, break it up with the spade and pass through a sieve, 1½-inch mesh. To a barrow-load of this add half a barrow-load of leaf-soil and half a gallon of quick-lime, mixing all well together, and place in the frame 7 inches deep. If these materials are not available then use ordinary garden soil, adding a gallon of lime to each barrow-load of soil. This will bring the surface of the soil within 10 inches or 1 foot of the glass. The plants must be planted firmly in the soil about 6 inches apart and given a good watering. They will not require much water for some time afterwards. Keep them cool always, but protect from hard frost, and give plenty of air on all favourable occasions.

**Moss Carnations.**—Malmaloon Carnations should certainly not be syringed during the winter months, a remark that applies with equal force to the other sections. At this season, when in a fairly quiet state they need very little water, and a free circulation of air whenever possible. Good sturdy plants 8 inches to 10 inches high at the present time should flower well next summer.

**GERANIUMS NOT FLOWERING** (*Broadwater*).—There cannot be very much wrong with your treatment if you get the plants to bear buds. Perhaps the soil is too rich, and so the plants make gross growth instead of firm shoots. Overfeeding with manure would have the same effect. The plants should have as much air as possible. There must have been something wrong with the roots for the buds to fall off as soon as the plants were housed, unless you used very strong manure. An application of this would, of course, make the buds fall. We are inclined to think that the plants were not really well rooted when the buds began to form, and should advise you to root the cuttings earlier another year. Unless the plants are thoroughly well rooted you cannot expect them to bear the burden of flowering.

## TREES AND SHRUBS.

**Box Hedge with Brown Foliage** (*W. Redge*).—The foliage sent was badly infested with scale, and we have no doubt this troublesome parasite is the cause of the foliage appearing so unhealthy. The scale may be, and no doubt is, encouraged by a rather starved condition of the roots. Our opinion is that a good hard cutting in would greatly benefit the hedge, but it would appear very unsightly for a time. When new growth commences give the plants a sprinkling of soot and some well-decayed manure, taking care also to dig up the soil around the hedge, and avoid going deep enough to disturb the roots. The

manure could act as a sort of mulch, or you might lightly turn it in under the soil. It may be that the subsoil is in a bad condition, and that this is causing the trouble. You can partly remedy this by putting some drainage down parallel with the hedge, if you are convinced the drainage is bad.

**SHRUBS ON SAND** (*S. S.*).—If your deep red sandy soil, which is, perhaps, poor, be fairly deeply worked and liberally manured, there are few trees and shrubs other than Rhododendrons, Azaleas, and Kalmias that will not in time do very well on it. It is surprising to find in relation to diverse soils how accommodating shrubs are. To attempt to furnish a list of fruits, flowers, and vegetables, also trees and shrubs, that would do with you would be to include almost everything grown. Work the soil well and manure it freely; that is the primary preparation. If you propose to plant a large area of ground, we should advise half-trenching it, simply breaking up the bottom and letting it lie, giving a liberal dressing of manure, and planting the whole with Potatoes in the spring. Next winter the land would be in capital condition for planting.

**Shrubbery.**—The question as to how to treat shrubberies is a reasonable one to raise just now. Much, however, depends upon the condition of the shrubbery in determining whether the ground shall or shall not be dug. Many old shrubberies, especially where trees overhang, are so crowded that the soil has become one mass of roots. There is no use whatever in such cases in attempting to dig in the leaves that lie on the surface, and there is no other course but to let them lie and decay in due time, or cover them over with a coating of soil, which, however, cannot always be found. Then there is the plan of annually clearing out all the leaves, carting them away to some out-of-the-way place to decay, bringing back in their place the leafage of the preceding year, which, with other refuse, has become thoroughly rotted and is now in admirable condition to spread over the surface as a mulch or dressing.

## THE GREENHOUSE.

**LILY OF THE NILE** (*Nile*).—The plant to which the inappropriate name of the Lily of the Nile is applied is *Richardia æthiopica* (the Arum Lily). The description of your tubers does not, however, at all fit those of the Arum Lily, but it applies to some of the other *Richardias*, such as *R. alba maculata*, *R. elliotiana*, and *R. Pentlandi*. They are none of them hardy, and all need the protection of a greenhouse. The new growth is pushed out from the slight hollow on the upper surface, so that in potting this side must of course be uppermost. Once they start these plants grow rapidly and are liberal feeders. In potting place the tubers at such a depth that there is 1 inch of soil above the top of the tuber, then stand in the greenhouse, and give little water till growth begins; as the leaves and flowers develop a copious supply is required.

**ORIGIN OF TUBEROUS BEGONIAS** (*J. M.*).—The Tuberous Begonias have resulted from the crossing and intercrossing of five species, all natives of the Andean region of South America, viz., *Begonia boliviensis*, which was sent to this country in 1864 by Mr. Richard Pearce, when collecting in Bolivia for Messrs. James Veitch and Sons. It was first shown in flower in 1867, and put into commerce the next year, 1868. This had small, drooping, long petalled flowers, of a cinnabar scarlet colour. *Begonia Pearcei* was also sent here in 1865 from Bolivia by Mr. Pearce, in whose honour it was named. This species was the forerunner of the numerous yellow-flowered varieties. *Begonia roseiflora*, a species from the elevated regions of the Andes of Peru, introduced by Messrs. Veitch, with whom it flowered for the first time in 1867. The flowers of this were round, and of a pale red colour. It never became very popular. *Begonia Veitchii*, another of Mr. Pearce's introductions, from Peru, in 1867. The flowers were round, and of a bright cinnabar red colour. The very round flowers of the present day hybrids undoubtedly owe a good deal of this character to the influence of *B. Veitchii*. *Begonia Davisii*, the last species to be introduced, was discovered by Messrs. Veitch's collector, Mr.

Davis, in Peru, at an elevation of 10,000 feet, and first flowered at Chelsea in 1876. It is characterised by a very dwarf habit, and erect flowers of a bright scarlet colour. The compact growing upright flowered forms so much met with to-day show a great deal of the influence of *B. Davisii*. The first hybrid *Begonia* was the produce of *B. boliviensis*, and was sent out in the year 1870. It was named *B. Sedeni*, in honour of the raiser, Mr. Seden. Soon after this great numbers of hybrids were raised by different cultivators, and from these beginnings the hybrids are to be seen in the Tuberous Begonias of to-day. Continual selection from the palest forms of *Begonia roseiflora* resulted at last in a white variety.

**DATURA** (*G. H. Greatback*).—The enclosed leaves are that of a *Datura*, often grown in gardens under the name of *Brugmansia*, and if as you say the flowers are double, it is *Datura Knightii*, which is, however, from a botanical point of view, only a variety of *Datura suaveolens*, a native of Mexico, and introduced therefrom in 1733. The plant attains a considerable size, viz., at least 12 feet in height, and with a large head of branches. It may be planted out in a prepared bed in the greenhouse, or grown in a large pot or tub. The plant must not, however, be put directly in a tub when small, but should be lifted on once or twice into larger pots. The *Daturas* are deciduous, or almost so. The cultural requirements of a *Datura* are the same as those of a *Fuchsia*, that is to say, if repotting is needed it should be done in the spring; the plants may then be liberally treated during the summer months, and in winter they should have a period of rest, when but little water will be required. We should think that you have kept your plant too moist at the roots during the winter. Even if the plant dies back a little it will with the return of spring grow away freely.

**Tedbury.**—You stopped your plants of Edwin Molynaux too early, and as a consequence the buds also developed too early in August to give you really satisfactory blooms. Try pinching your plants during the first week in April, which should have the effect of causing the buds to evolve about the third week in August. There is good reason for believing that the constitution of this one-time popular exhibition sort is now somewhat impaired, and to this fact must be largely attributed the cause of failure with many growers.

**T. Forster.**—You must, of course, have *Chrysanthemums* such as *Source d'Or*, *Mary Anderson*, *Lady Selborne*, *Western King*, *William Holmes*, and other free-flowering varieties; they will be most useful for church decoration during the winter. If you want a late-flowering white you should grow *L. Canning*. *Zonal Pelargoniums*, of which there are varieties innumerable; *Roman Hyacinths*, *Paper White* and other *Narcissi*, winter-flowering *Carnations*, such as *Fair Maid*, *Enchantress*, *Mrs. Lawson*, and others. *Eupatorium odoratum* and *E. micranthum*. *Salvia splendens*, *S. rutiana*, and *S. Heeri* are all good winter-flowering plants, but not so suitable for cutting. *Primulas*, *Cyclamens*, the many beautiful winter-flowering *Begonias* and *Cinerarias* are also valuable winter-blooming plants, though of little use for cutting, except *Cineraria stellata*, which is especially useful.

## ROSE GARDEN.

**BONE-MEAL FOR ROSES** (*Subscriber*).—This fertiliser is very useful if mixed with the soil at the time of planting the Roses at the rate of a handful to each plant, but we do not care so much for it for established Roses. Most good Rose-growers are using basic slag, and if this is very finely ground its value is the greater. It is excellent for all soils deficient in lime; it is also cheap, and as it will keep for any length of time it is cheaper to purchase in bulk. The basic slag is usually applied at the rate of about 6oz. per square yard, and is put on the ground just previous to a surface dressing of manure. We prefer to fork it beneath the surface as soon as practicable. Another excellent fertiliser is *Tonks' manure*. A good dressing of this applied in February has very lasting results. It is made as follows: Superphosphate of lime, 12 parts; nitrate of potash, 10 parts; sulphate of magnesia, 2 parts; sulphate of iron, 1 part; sulphate of lime, 8 parts. Apply at the rate of ½ lb. to the square yard. You will

find in our advertising columns particulars of trees and shrubs.

**ROSES LOSING THEIR FOLIAGE** (*William Redge*).—The foliage appears to be that which was produced last season, and the plants shedding the leaves now are only following natural laws. Frequently *Maréchal Niel* and some other sorts will retain the old foliage until the new shoots are well advanced. You need not fear any injury to the plants. If you have not already pruned them, they should be looked over and all lateral growths cut back to within 2 inches to 6 inches of the previous year's growth. Any good long rods that were made during the last summer should not be pruned back, save taking away 1 foot or so of the soft, unripened ends, for it is upon such rods that you will obtain your best blossom this season. Tie out all the growths, so that light can penetrate freely, and, if they are too numerous to allow of this being done, you can without injury remove one or two growths quite to the base.

**T. T. W.**—You must not prune the Roses yet, although the buds may be bursting into growth. This is due to the mild weather. If we have some cold weather it will retard the Roses, and probably kill some of the new growths. You must not prune before the end of March.

### FRUIT GARDEN.

**MILDEW ON VINES** (*J. J. Turnam*).—The simplest way to get rid of mildew is by using flowers of sulphur. This should be freely dusted on the leaves and bunches as early in the season as the first trace of mildew is seen. Unless you adopt preventive measures when the trouble is slight, you will never be able to keep down the disease in an unheated house. All the fallen leaves and diseased berries should be carefully gathered and burnt, for they contain mildew spores. In the early spring remove 2 inches or 3 inches of the surface soil and burn it, or take it right away. It is more difficult to get rid of mildew in an unheated than in a heated vinery. You must keep the atmosphere as dry as possible when the disease is first noticed, for mildew quickly spreads in a moist atmosphere. Ventilate freely except in damp weather, but do not open the front ventilators when it is cold or windy. If freely sprinkling the leaves and fruit with flowers of sulphur does not check the disease next season, spray with sulphide of potassium, and out off just a few of the very worst-affected leaves. To make sulphide of potassium dissolve 1 oz. of sulphate of potassium (liver of sulphur) in a quart of hot water and dilute it with 2½ gallons of water. You might remove any loose bits of rough bark that are mildewed and burn them.

**PRUNING FRUIT TREES** (*W. J. Chapman*).—It is generally admitted that it is better to prune fruit trees when planted than to defer pruning till the second year. All surplus branches should be cut clean out, and all other growths intended to play a part in the future tree should be cut back about two-thirds of their length. If judicious pruning is carried out the first season there is an actual gain in time in establishing the form of the tree. If the trees are planted in the autumn, pruning ought to be carried out in November, December, or January, in mild weather. In cutting take care to cut to an outside bud, so as to prevent future shoots blocking the centre of the tree. In July pinch back the lateral growths to about 2 inches; any wanted to form the shape of the tree may be left. Root pruning, if properly carried out on those trees which require it, is most beneficial. You should root prune your Apple trees, cutting back the long, thick, fibreless roots, and relaying any which have a downward tendency in a horizontal direction nearer the surface. Replace the old soil thrown out with fresh, containing plenty of lime and brick rubble, wood ashes, and road scrapings. Make the soil firm when filling it in. Remove the surface soil, say, 6 inches deep, and replace with that advised above. Cutting back

the thick and descending roots, and relaying in the fresh soil, thinning out the weakly and crowded shoots so as to let in plenty of light and air, should do good.

**F. W.**—The best fruit trees to plant against a wall facing east are undoubtedly dessert Plums such as the *Gages* and the *Golden Drop*. They succeed exceedingly well exposed to this aspect. Dessert Cherries will also succeed almost equally as well, also some of the hardier varieties of Pears, such as *Williams' Bon Chrétien*, *Marie Louise*, *Louise Bonne de Jersey*, *Pitmaston Duchess*, *Doyenné du Comice*, and some others. But Plums and Cherries succeed better than Pears. Grapes retain their flavour and quality better and for a longer period when out of the Vine at this time of the year. The shoot on which the bunch hangs should be placed in a bottle of water in a dark, dry room, with a temperature of from 48° to 53° Fahr. Moreover the Grapes are a certain tax in the strength of the Vine whilst hanging, and consequently their removal will help the Vine to a more complete rest and recuperation during winter.

### KITCHEN GARDEN.

**BRUSSELS SPROUTS ROOTS INJURED** (*E. F. C.*). While the teeth-marks on the roots of the Brussels Sprouts plants sent seem large for those of mice, and more resemble those of rats, we can hardly imagine that the latter would cause the mischief, as they are of a more carnivorous nature than mice or moles. Really the injury done resembles that of the mole cricket, an insect about 2 inches long, which burrows in the soil like the mole, especially in the neighbourhood of streams. It eats through any vegetable substance that may come in its way, and even throws up small hills of soil, as moles do. Where these hills are seen, the insects should, if possible, be dug out. The injury may have been done by moles, as we have found that they eat Potatoes. Steep pieces of rag in paraffin, and put them in the runs.

**WATERCRESS BEDS** (*E. E.*).—Without actually seeing the condition of the bed it is difficult to say whether it would be best to clear it of weeds or clean it out and replant. To clean out and replant will entail a considerable amount of work and some expense, but to clear it of weeds should not be a formidable matter, and this we think we should be inclined to do, for this year at any rate. Let the water out, and drain the pond or brook dry. While the weather is open and mild carefully remove every weed, roots and all, using a fork if necessary. After this work is finished, the bed, no doubt, will have a good many bare patches on its surface. To these add some fresh garden soil, take slips or cuttings from the old Watercress plants (about 6 inches long), replant the patches with the slips 9 inches apart, and make quite firm. Plant them 4 inches deep. By working on these lines we feel sure you will have good success with your bed for many years to come. Should the weather all at once turn frosty, the work could be quite as successfully carried out any time between now and the middle of March.

**CROPPING NEW GARDEN** (*A. O. H.*).—Not a great crop of any vegetable, still less of several kinds, for market sale can be looked for from an acre of ground. The area is about large enough to furnish vegetables for one fair-sized family all the year round. The ground, having been originally covered with gorse, then for two years cropped with Potatoes, can hardly be other than poor, and for general vegetables seems to need ample manuring. No doubt a dressing of gas lime such as you have given will help to get rid of the wire-worms, but it will add no manurial value. Not only should the ground be deeply dug, but in February before cropping a good dressing of half-decayed manure should be given. As the gas lime will be exposed on the surface for several weeks, it will not be injurious to crops. Without adding a manure dressing we fear the cropping would give but poor results. In cropping plant one half with early Potatoes. These should come off in July, and could be followed by white Turnips, stump-rooted Carrots, Spinach, Cabbages, Savoys, or Coleworts. The other half can

be sown or planted with dwarf Peas, Intermediate Carrots, Parsnips, Onions, Runner and dwarf French Beans, Autumn Giant Cauliflowers, and Celery. There is no paper specially devoted to the subject you name.

**F. C. P.**—From our correspondent we have received a specimen Mushroom with another small Mushroom growing on the top of it. This is not a very rare occurrence, we have frequently come across similar cases. It is a freak of Nature of which no one, so far as we know, has been able to give the cause.

**A. W. V.**—The maggot which has attacked your young Cabbage plants is evidently the larva of the Cabbage fly. The generations of maggots produced by this fly are assumed to feed up to November, but owing to the winter so far having been open, no doubt the maggot has continued to feed until now. Either smother the bed with fresh soot, washing it in the next day, then give a fresh dressing, or else lift all the plants from the bed, put them into a bath of clear soot water, and replant them 2 inches apart in a cold frame, dusting them afterwards freely with soot or lime.

**Anonymous**—The safe wintering of Broccoli is in many gardens a difficult matter, and in low-lying, cold districts it is almost an impossibility in an average winter. On the uplands, where the crop is grown in full exposure, and the soil well drained, these difficulties are lessened; still, it is wise to take due precaution in all cases, the crop, when it can be saved, being valuable. We have tried many methods of saving the plants, but so far we have found no method to equal that so frequently recommended of taking out a trench on the north side of the plot, and heeling over the adjacent plants into this, covering the stems quite up to the lowest green leaves on the plants with soil taken from the north side of the next row, to allow of this in its turn being heeled over. In this way we go right through the plot, so that when the work is finished all the heads are inclined towards the north, and all the stems of the plants are covered with soil.

### MISCELLANEOUS.

**B. A.**—We are fully alive to the fact that small birds commit havoc in gardens. Cannot you protect your trees? In some gardens where birds seriously diebated fruit bushes, or attack the bush fruits as well as those of Strawberries, these are either wired over—framework being erected for the purpose—or else covered with fish netting. With such things as Crocuses, Primroses, or other flowers a few lines of black thread fixed over them just above the ground form an excellent protection. Without doubt, laws for the protection of birds have acted disastrously for gardeners in many cases.

**HEATING A GREENHOUSE** (*W. D.*).—A greenhouse 16 feet by 9 feet needs ample heating power to exclude hard weather. Gas is, of course, fairly reliable, and its heating power is considerable, but it could be utilised for your purpose only in connexion with a proper boiler and hot-water piping. To heat two flows and a return of 4½-inch piping you would need powerful burners, and the consumption of gas would be considerable; but everything would depend on the nature of your burners and the way their consumption was regulated. The details you ask for can be best—indeed, almost only—supplied by those who enter for this form of greenhouse heating, and we advise you to apply to some firm advertising in our pages. Gas as a heating power depends very much on its quality, its cost, and the nature of the apparatus it has to heat. Coke is fairly cleanly, and no doubt cheap, but it needs very much attention.

**NAMES OF FRUITS**.—*G. H.*—1, Apple Winter Peach; 2, Pear Bergamot Sagert. We do not know the "Sun" Apple. *New Subscriber*.—Apple Sir William Gibbon. *E. Milcom*.—We do not recognise the small fruit; it is probably a local variety or a very poor fruit of a larger Apple. No. 2 is *Lane's Prince Albert*. The Pear is *Doyenné d'Alençon*. *E. J. J.*—Apple Lord Burghley; Pear Josephine de Malines. *Curious*.—The fruit you have is the Grape fruit. *Mrs. Chasmer*.—1, Apple Sturmer Pippin, one of the very best late Apples; will keep for two or three months; 2, Allen's Everlasting, another late variety.

**NAMES OF PLANTS**.—*J. Tizard*.—1, *Onychium japonicum*; 2, *Polypodium Billardieri*; 3, *Polytaichum angulare acutifolium*; 4, *Pteris cretica albo lineata*; 5, *Blechnum occidentale*.—*J. C. N. M.*—1, *Madevalla tovariana*; 2, *Odontoglossum luteo purpureum*; 3, *O. asceptrum*; 4, *Dendrobium Phalaenopsis schöderianum*, all Orchids. The greenhouse shrub is *Myrtus Ugni*, more generally known in gardens as *Eugenia Ugni*. It has small white Myrtle-like blossoms which are succeeded by fruits about the size of Black Currants and reddish when ripe. In this stage they have a pleasing aromatic flavour, but are of too gritty a nature to become popular, as it was at one time anticipated they would. Your spike of *Onocidium macranthum* may yet lengthen considerably before it flowers, for we have known it to attain a length of 8 feet to 10 feet. As a rule it blooms in late spring and early summer. *A. Sagar*.—The specimen sent is a form of *Laurus nobilis*, not sufficiently distinct to have a varietal name. This plant is often raised in quantity from seed, and there is then a certain amount of individual variation in the progeny. At the same time, the spray is unusually laden with berries, which in the colder parts of the country are almost unknown, but in the South and West are often produced. *W. Windrose*.—1, *Sedum rupestre*; 2, *Saxifraga trifurcata*.

## INSECT PESTS.

## THRIPS ON ROSES.

**I** WONDER how many rosarians went about with a look of blank despair upon their faces when they became aware of the advent of this most mischievous pest during the extreme drought of last summer.

Just as a sharp May frost dashes to the ground all one's hopes, so does the arrival of thrips cause discomfiture and ruin the results of months of labour. Assuredly no other pest with which rosarians have to battle works so much havoc in so short a space of time and is so difficult to eradicate. Strictly speaking it is a climatic disease, and it is mostly those whose gardens are on a light shallow soil who know to their cost what a dreadful plague this is. You may mulch, water, and hoe to your heart's content, but all is useless.

After several weeks of hot scorching sunshine the wind blows like a sirocco, and you may be perfectly certain that the arrival of the dreaded thrips will not be long delayed. Last year we had the worst attack that I ever remember; they came not in battalions but in legions, smothering everything from top to toe in the garden and devouring anything in the nature of a flower. Even the house became infested with them. For the space of at least ten days they were rampant in the garden, and all the luckless Roses which happened to be in flower during that period were spoilt. At the end of the ten days relief came in the shape of a perfect deluge of rain which quite paralysed the pest. However, when I went the round of my Roses the next day I saw at once that there were thousands of the insects still alive in the buds and blossoms, and my next plan was to devise some means of getting rid of the plague, or else I knew well that I should be troubled with it for the rest of the summer and autumn. Accordingly I got my Vermorel sprayer to work and sprayed every plant all over with a good strong solution of "Abol" insecticide, taking care that it penetrated well into all the expanded flowers and buds. This was done two days following, and then I went carefully over the plants and removed all those flowers and buds which I found were still infested and burnt them. The result was that in the space of about three days I had completely eradicated the thrips, instead, as heretofore, of having them linger on all through August and September. Of course, August was so damp and cool that this fact alone would probably have prevented the pest from making any further headway even if I had not taken these precautions. Still to those who are troubled with thrips these remedial measures may well be recommended, and I shall most certainly repeat them in future.

My Carnations, which were treated in the same manner, were kept entirely free by this method, while in all the neighbouring gardens they were quite ruined. So many of my rosarian friends cultivate their plants on cool deep soils that their acquaintance with thrips is slight. The late Mr. Foster-Melliar was, however, a great sufferer at their hands, and I cannot do better than conclude by quoting what he says upon the subject: "Thrips, well known as a pest on many plants under glass, are often very destructive in hot seasons on dry soil. These active tiny black insects cannot eat much it is true, but as what they do eat is the petals of the Roses themselves they often just suffice to spoil an otherwise perfect bloom. In many places they seem to be hardly known as an outdoor pest, and I could scarcely get some friends to believe how much all my light-coloured Roses suffered in this way in rusty and disfigured petals till the year 1893, when owing to the drought the nuisance was more widely felt. I am seriously inclined to think that for Teas at all events in my garden thrips are the worst of all pests. From two good rows of standard Teas in fine health and growth I gathered in 1893 but

one decent bloom, the petals being terribly discoloured and even distorted in every other case, and each flower swarming with the enemy. The remedy for thrips as for red spider is moisture; but, unfortunately for Tea Roses, the remedy is as bad as the disease. It is probably a good plan to syringe the plants and the buds before they actually begin to open with some good insecticide. Syringing even with plain water will undoubtedly keep off the thrips, and if continued as long as it is safe without injuring the petals from damp the pest will not in most seasons be found in much strength. Constant damping of the soil under the blooms would probably be useful."

ROSARIAN.

## LEGAL POINTS.

**REPAIRING HEDGE (C. C.).**—As the landlord has not undertaken to repair the hedge, you cannot compel him to do so. The fact that you are under no obligation to repair makes no difference.

**GAME LICENCE TO SHOOT RABBITS (J. S.).**—Some time ago we published answers to various correspondents who wrote to us regarding game and gun licences. In reply to an enquiry we have since received the following letter from the Assistant Secretary to the Inland Revenue, which confirms our view that legally a game licence is required to shoot rabbits otherwise than under the provisions of the Ground Game Act. Our readers will, however, observe that the Inland Revenue authorities state that in practice no such licence is demanded. "In reply to your letter I am directed by the Board of Inland Revenue to acquaint you that as regards Great Britain the strict legal position is that rabbits fall within the definition of game in the Excoise Game Licences Act, 1860 (23 and 24 Vic., c. 90), subject to the exemption in section 5 (2) of that Act for the taking or destroying of conies by the proprietor of a warren, &c., and by the tenant of lands or his authorised nominee, and subject to the further exemption allowed by the Ground Game Act of 1880. But having regard to the wide effect of the change in the law made by the latter Act, and to the reluctance of the magistrates to enforce the penalty for game in the case of shooting rabbits, the Board have for some years past refrained from taking proceedings for that penalty, and are satisfied if a gun licence be held. I am to add that under section 43 of the Act (23 and 24 Vic., c. 113), a licence is not required to authorise the taking or killing of rabbits in Ireland, and therefore in Ireland a gun licence is sufficient in every case."

## THE EDITOR'S TABLE.

**W**E invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, W.C.

## WINTER FLOWERS FROM SCOTLAND.

The extraordinary mildness of the season enables me to send for your table a few of the many flowers which are at present in bloom here. This morning I noticed in a sheltered nook several self-sown Nasturtiums an inch above

ground. Snowdrops we have had in bloom since Christmas, and made our first good gathering on the 5th inst. Primroses and Polyanthus of all colours are plentiful. Single and double Arabis, Winter Aconite, Scillas, Hepaticas, and Violets are all flowering. In the rocky the beautiful Satin Flower (*Sisyrinchium grandiflorum*) and *Campanula isophylla* are in bloom. We have among flowering shrubs the fragrant *Chimonanthus* and *Mahonia*, while our walls have been gay with the bright yellow *Jasminum* since the end of November. Though less brightly coloured, the *Garrya elliptica* in full bloom on a sheltered border is at present an object of great beauty. I enclose a truss of *Rhododendron* cut from a plant which is at present opening some scores of its lovely flowers. Despite these early blooms, one looks forward with a shudder to the nipping winds and frosts which are almost sure to come before real spring sets in. J. JEFFREY.

*The Gardens, St. Mary's Isle, Kirkcudbright.*

[A beautiful lot of the flowers mentioned accompanied Mr. Jeffrey's note.—ED.]

## PRIZES OPEN TO ALL.

## WALL GARDENS.

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA  
are offered for the best answers to the following questions:

1. Describe briefly how a wall should be constructed for wall plants.
2. Describe the way the plants should be inserted in both rough stone and brick walls.
3. Describe the sowing of the seed in the wall. Is it better to plant seedlings or to sow seed, and when is the best time both to plant and sow?
4. Name the most beautiful spring, summer, and autumn-flowering plants for sunny walls.
5. Name the most suitable plants for a shady wall and those that give the best effect in winter.
6. Describe the way to treat an old mossy wall which it is wished to sow or plant.
7. How should the plants be treated at all seasons?

The answers must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than January 31. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## SOCIETIES.

## THE HORTICULTURAL CLUB.

## BRITISH AND FOREIGN PARKS—A COMPARISON.

On Tuesday, the 9th inst., the usual monthly dinner of this club was held at the Hotel Windsor, under the presidency of Mr. Harry J. Veltch, when a good number of members and guests attended, and Mr. C. Jordan, superintendent of Hyde Park, read a very interesting paper on "British and Foreign Parks—A Comparison." The paper was divided into two sections, the first dealing with some of the principal parks of the European capitals, such as Paris, Vienna, Berlin, Buda-Pesth, and other cities, regarding which he gave many interesting details as to the mode in which they were laid out, the width and the arrangement of the roads, and other data of great practical value. All these parks and open spaces, naturally, depended for their attractiveness a good deal upon their surroundings and the topographical conditions of their sites, as well as upon the climatic conditions. The lecturer dwelt at some length upon the beauties of the renowned



gardens at Versailles and the Bois de Boulogne and Bois de Vincennes in the vicinity of Paris, and he also graphically described the beautiful scenery of Buda-Pesth and the splendid character of Vienna as a city, though in this latter connexion the chief park, the Prater, left very much to be desired, being practically entirely flat, while it was disfigured by many tenth-rate restaurants, shows, &c. The general impression left by the Continental parks was that they erred in comparison with British parks in the direction of too great a formality, and the consequent lack of that natural wild charm which we see in our parks and open spaces, especially, as in the subsequent discussion was pointed out, in the case of Hampstead Heath, which was recognised as probably a unique example of splendid wild scenery and natural beauty on the immediate margin of a mighty city. Reference was also made to the difference in the use of these Continental spaces by the public, since, while in our parks, &c., large areas are freely open to sports and games of all kinds, the Continental ones present little of these facilities, and what there are are under too great restriction to render them of much value. The fact that the public are generally excluded from the grass areas, while here there is no such exclusion, was also adduced as a disadvantage, but it was pointed out in defence of this Continental restriction that the drier conditions of Continental summers were so unfavourable to grass growth that the same amount of traffic over it could not be permitted, as it would inevitably exterminate it, which is not the case under the more humid conditions prevailing here. In the subsequent discussion, in which Messrs. H. J. Veitch, Chas. Munro, Drury, Marshall, White, and Ambee took part, the value of Mr. Jordan's paper was fully recognised, and his opinions were endorsed in many cases by these gentlemen, most of whom have visited the cities referred to. The paper will probably appear in the Royal Horticultural Journal, where, owing to its peculiarly practical nature, and emanating as it does from an expert, it will be decidedly in place. A hearty vote of thanks concluded the meeting.

#### SOCIÉTÉ FRANÇAISE D'HORTICULTURE DE LONDRES.

ON Saturday evening, the 6th inst., Mr. John Harrison of Leicester presided over an international gathering of horticulturists assembled together at the Café Royal, Regent Street, to celebrate the seventeenth anniversary of the above-named society, as we stated last week.

The chairman proposed the toast of the evening, "La Société Française d'Horticulture de Londres," remarking upon its usefulness, and the fact that it had now been established for seventeen years, during which time it had been practically carrying out the work of the *entente cordiale* in its own way. It was interesting to note the progress made, for beginning in a humble way, it could now count on its muster roll 600 members.

Mr. Schneider's reception was as usual a most cordial one. His reply was to the effect that their chairman, as a very successful man, and the head of an important firm in Leicester, was well qualified to give advice to young men, and he thanked him for so doing. The society, although handicapped during the past year by bad trade, was still in a very good position. It had £160 in the reserve fund, and its library, which was much valued by the young members, had now assumed proportions that rendered it necessary to consider the question of finding a new home in a more suitable place.

Mr. Harman Payne said he had been a member of the society for fifteen years, and that if they had English friends and supporters it was because they had maintained and encouraged the good feeling that has always existed between horticulturists of the two countries.

Mr. Schneider announced the names of several new honorary members, and also some donations, one coming from their old friend and honorary president, M. Ouvrard, who was too old to attend their festive gatherings at night. A presentation of cutlery in a case was made to Mr. Schneider on behalf of the young men in whom he takes so great an interest, and duly acknowledged. Music and recitations were freely interspersed with the speeches during the evening.

#### REDHILL, REIGATE, AND DISTRICT GARDENERS' ASSOCIATION.

THE fortnightly meeting of the above society was held on Tuesday, the 2nd inst., Mr. W. P. Bound in the chair. The evening, as is usual once a year, was given up to a retrospect of the past season in horticulture. Mr. Eisey, of The Gardens, Coppice Lea, Mertham, opened the meeting by reading a paper on "Successes and Failures during 1905." It was gratifying to note that the successes far outweighed the failures in Mr. Eisey's case. A good discussion followed, in which a large number of members took part. It was generally considered that the past year had been a very favourable one. A hearty vote of thanks was accorded to Mr. Eisey on the motion of Mr. Bound, seconded by Mr. Legge. This terminated the meeting.

#### CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

To conclude the programme of lectures of this society for its present session, Mr. P. F. Bunyard, Kildermister Road, West Croydon, had a capital muster at the society's rooms to listen to an account of his recent travels in the Faroe Islands. The title of the lecture was "The Flora and Fauna of the Faroe Islands," but Mr. Bunyard augmented this by describing the habits and occupations of the natives. Their principal industry is fishing. Vegetables, excepting Potatoes, are seldom seen. Trees there are none, but such fruit bushes as Gooseberries and Currants, especially the

black variety, appear to do well. Only the Alpines and rock-loving plants are to be found. Following a short discussion, the meeting conveyed to Mr. Bunyard its heartiest thanks for the excellent lecture given.

#### NORTH OF SCOTLAND ROOT, VEGETABLE, AND FRUIT ASSOCIATION.

THERE was a good attendance at the annual general meeting of this association, which was held in the Town Hall, Inverurie, recently. Treasurer Law occupied the chair. The annual report was submitted by Mr. James Eddie, secretary and treasurer, and was generally of a favourable character, although the wet weather at the time of the show had reduced the number of exhibits, as a number of the entries were not forward. There is a credit balance of about £9 in favour of the association. The report was unanimously adopted. It was agreed that the next show be a two days' one.

#### WOOLTON GARDENERS' SOCIETY.

THE annual meeting was held at the Mechanics' Institute recently, Mr. E. Todd in the chair. The report and statement of accounts submitted by the hon. secretary and treasurer gave evidence of a satisfactory year's work, excellent papers were delivered by capable essayists, and special chairmen were invited to preside. The library of some 150 volumes was much appreciated, and a note of unusual merit was given as to the value of the microscope. There is a balance in hand of £29 4. Votes of thanks were tendered to the officials, all of whom were re-elected, Mr. R. G. Waterman retaining the dual office of treasurer and secretary.

#### BATH GARDENERS' DEBATING SOCIETY.

THE programme for this year is as follows: January 22, "The Progress of Hardy Fruit Culture," by Mr. W. Stragell, Wood Ashton; February 12, "Primula sinensis from 1819 to 1906," illustrated with a series of lantern slides, by Mr. H. G. Cox, Hon. Secretary of the Reading Gardeners' Mutual Improvement Association; February 26, "Violet Culture," by James C. House, Westbury-on-Trym; March 12, "Grapes and Their Culture," by Mr. William Taylor, Bath; March 26, "Gloxinias," by Mr. F. Bible, Draycot; April 9, "Herbaceous Calceolarias," by Mr. Charles Wakefield, Westbury-on-Trym; April 23, "Chrysanthemums," by Mr. W. Isgruden, F.R.H.S., Frome; May 14, open discussion; May 28, "The Rose in History, Poetry, and Commerce," by Mr. E. J. Love, Bath; June 11, "Tuberous Begonias," by Mr. W. Morse, Westbury-on-Trym; July 9, "Carnations," by Mr. Charles Wall, Bath—the second annual outing will take place during this month; August 13, open discussion; September 10, annual meeting; and the second annual Chrysanthemum show will be held during November.

#### SCOTTISH HORTICULTURAL SOCIETIES.

ROYAL CALEDONIAN.—The annual general meeting was held on the 10th inst. The report of the council for the year ending November 30 was presented by Mr. P. Murray Thomson, the secretary and treasurer, and was generally of a favourable character. It referred to the anxiety and labour occasioned by the International Horticultural Exhibition, which had been very successful. It was also mentioned that the council had arranged for the spring show to be held on May 9 and 10, an earlier date than those of the past two years. A Rose show in conjunction with the National Rose Society would be held on July 18, it being mentioned that the last provincial show of the National Rose Society in conjunction with the Royal Caledonian Society was held in 1887, the latter society holding its last summer show in 1890. The usual autumn show will be held on July 12 and 13. The chairman, Mr. J. W. M'Hattie, moved the adoption of the report in an excellent speech, in the course of which he referred to the success of the International Exhibition, to the proposed show in July, and to the continued progress made by the society. The report was adopted, and Mr. P. Murray Thomson afterwards thanked for his services in the work connected with the International Horticultural Exhibition. Lord Balfour of Burleigh, who has warmly interested himself in the society's work, and who has done much personally to increase its membership, was re-elected president; Mr. R. Brooman White, Ardarroch, was elected a vice-president, in the room of Sir James Miller; and the following were appointed members of council, to fill vacancies caused by retirement in rotation and death: Mr. G. P. Barry, Mr. R. Laird, Mr. R. V. Mather, and Mr. G. Wood.

SCOTTISH HORTICULTURAL ASSOCIATION.—The annual general meeting of this association was held in Dowell's Rooms, Edinburgh, on the evening of the 9th inst. The attendance was very large, and much interest was manifested in the proceedings. The reports of the secretary and treasurer were submitted, and were of a satisfactory character. One hundred and thirty-five ordinary and three life members had been admitted during the year, and the membership at the close of the year had reached the high figure of 1,388. Allusion was made to the successful meetings held during the year, and to the Chrysanthemum show of the association in November last. The treasurer's report showed a considerable increase of funds, mainly derived from the members' fees and subscriptions, the total balance from the Chrysanthemum show being £10 4s. 8d. The reports were adopted, and the officials thanked. The meeting proceeded to elect the office-bearers for the year, and Mr. David W. Thomson, nurseryman, George Street, Edinburgh, was appointed president in the room of Mr. J. W. M'Hattie, who has

occupied the chair with much success for some time. Mr. M'Hattie and Mr. Anderson were elected vice-presidents. The appointment of secretary and treasurer was conferred upon Mr. A. D. Richardson, Science Gardens, these offices having been formerly held by Mr. Peter Loney and Mr. William Mackinnon respectively. It was arranged that the annual Chrysanthemum show of the association should be held in the Waverley Market, Edinburgh, in November.

#### CARDIFF GARDENERS' ASSOCIATION.

THE opening meeting of the new year took place at the Sandringham Hotel on Tuesday, the 9th inst., when Mr. F. G. Treseder presided over a large gathering of members. Mr. E. H. Battram, Abercromby, delivered an address upon "Gardening of Fifty Years Ago and that of T-day." A long discussion followed, and in conclusion Mr. Battram was very heartily thanked for his address. A very fine pot of *Cypripedium insigne* was shown by Mr. E. Mayne, and awarded the prize of 5s. offered by Mr. P. Beames; a first-class certificate was awarded to the same pot (carrying thirty-eight blooms).

**Horticultural Education Association.**—The paragraph on page 19 of last week's issue announcing a meeting of the Horticultural Education Association at the Horticultural Club room, Hotel Windsor, on the 28th inst., was sent to us late; the paragraph referred to the 28th of December. There is no meeting this month.

**Cyclamen Low's Salmon.**—There is no doubt that this is a valuable new Cyclamen. The colour of the flowers is salmon, or salmon rose, and quite clear and distinct. The group of plants shown by Messrs. Hugh Low and Co., Bush Hill Park Nurseries, Enfield, at the meeting of the Royal Horticultural Society on the 9th inst., was much admired; the blooms were quite distinct in colouring from any other Cyclamens shown. Their salmon colouring is equally attractive under artificial light. The plants are of compact habit of growth, and the blooms are produced on long stiff stalks. It will doubtless prove a good market plant.

#### PUBLICATIONS RECEIVED.

The Journal of Botany; Boletim da Real Associação Central da Agricultura Portuguesa; Register of Nurseries, Market Gardens, Farms, Florists' Seed Businesses to be Let or Sold, from Protheroe and Morris, 67 and 68, Chancery Lane, E.C.; Bulletin d'Agriculture et de Floriculture; Recently-recognised Species of *Crataegus* in Eastern Canada and New England, VI., by C. B. Sargent; The Flora of New South Wales, Vol. II., Part 7; Part XVII. of the complete work.

#### CATALOGUES RECEIVED.

*Sweet Peas*.—Robert Bolton, Warton, Carnforth. *Begonias*.—John B. Box, West Wickham, S.O., Kent; Thomas Ware, Limited, Feltham, Middlesex. *Spring Chrys.*, &c.—Herbert Terry and Sons, Redditch. *Horticultural Sundries*.—William Wood and Son, Limited, Wood Green, London, N. *Seeds*.—Toogood and Sons, Southampton; Fisher, Son, and Sibrey, Limited, Handsworth, Sh. field; Robert Sydenham, Tenby Street, Birmingham; Kent and Brydon, Darlington; Robert Veitch and Son, 64, High Street, Exeter; John Forbes, Buccleuch Nurseries, Hawick; Dicksons, Chester; Webb and Sons, Wordsley, Stourbridge; Dickson and Robinson, Cathedral Street, Manchester; David W. Thomson, 118, George Street, Edinburgh; J. Peed and Son, West Norwood, S.E.; Daniels Brothers, Limited, Norwich; Edmondson Brothers, Dublin; McHattie and Co., Chester; Pape and Bergmann, Quedlinburg; Samuel Dobie and Son, Heathfield, near Chester; Gilbert and Son, Dyke, Bourne, Lincs; Dobie and Mason, 22, Oak Street, Manchester; Henry Eckford, Wem, Shropshire; William Paul and Son, Waltham Cross, Herts; Browne, Thompson, and Co., 86, Patrick Street, Cork; E. H. Bath, Limited, The Floral Farms, Wisbech; B. S. Williams, Victoria and Paradise Nurseries, Upper Holloway, N.; The Agricultural and Horticultural Association, Limited, 92, Long Acre, London, W.C.; William Outbush and Son, Highgate, N., and Barnet, Herts; Stuart and Meis, Kelso, Scotland; Dobie and Co., Rotherham, N.B.; William Bull and Sons, Chelsea, S.W.; Cooper, Taser, and Co., 90 and 92, Southwark Street, S.E.; J. E. Pearson and Sons, Chilwell Nurseries, Loughborough, Notts; E. P. Dixon and Sons, Hull; Little and Ballantyne, Carlisle; H. Cannell and Sons, Swanley, Kent; Haage and Schmidt, Erfurt; Albert F. Upstone, 35, Church Street, and Market Street, Rotherham; Jardin Curveron, Floraire, Chéne-Bourg, G.-neuve; Ant. E. A. son and Son, Overveen, near Haarlem, Holland; W. Sampson and Co., 8 and 10, Portland Street, Kilmarnock; T. S. Ware, Limited, Feltham, Middlesex.

\* \* The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 9d.

# THE GARDEN.

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JANUARY 27, 1906.

## TABLE DECORATION.

**W**HETHER carried out in the home of the amateur, by the professional gardener in the mansion of his employer, or by exhibitors at flower shows, table decoration is an art that appeals to everyone interested in gardening. We make no apology, therefore, for giving a prominent position to the following essay on "Table Decoration," which won first prize in the December competition.

No hard-and-fast rules can be laid down as to methods of decorating tables. So much depends upon the likes and dislikes of those whom one has to please, the size of table to be decorated, and the material at command. At the same time, there are certain points which must always be carefully considered. Glaring contrasts of colour should be avoided. Some colours which look very well by daylight are failures under artificial light; for instance, flowers of a yellow shade look much paler under gas or electric light. Bright shades of pink, crimson, or red always look well. Light blue or mauve do not light up well, but flowers of a purple shade are very effective. Generally, flowers that harmonise with each other give the greatest satisfaction. Another important point is to use nothing on the table that will prevent the guests from seeing each other quite easily. Only perfectly fresh flowers should be used, and none that are very powerfully scented. On large tables plants up to the height of 15 inches may be used with very good effect, though there are not many which lend themselves to this work. For a daylight luncheon a few tall, clear-stemmed plants of *Cocos weddelliana*, *Aralia elegantissima* or *A. gracillima*, *Panax Victorice*, or some of the narrow-leaved varieties of *Crotons* may be used. The use of Arcadian arches for table decoration is not so common as was the case a few years ago, but the plan of arranging trails of greenery, such as *Smilax*, *Asparagus plumosus*, or *Ampelopsis Veitchii* from a central candelabrum, and connecting these with candlesticks, is very attractive if lightly done.

In some cases valuable china is much used in the arrangement of the table; if this is so, small plants in bowls are more in keeping than cut flowers in vases, but the cloth may be lightly draped with trails of greenery, and a few flowers carelessly disposed thereon, or longsprays of *Bougainvillea glabra*, *Euphorbia jacquiniæflora*, *Clematis indivisa lobata*, or *Tropeolums* may be used instead. If bowls are not available, small plants may be removed from pots, the soil reduced, and set in moss on small pieces of paper, with a few fronds of

Fern or *Asparagus* and choice flowers of one kind and colour placed in the mounds. This style of decorating would also apply to cases where there is a heavy display of plate on the table. When the dessert, or a portion of it, as is now generally the case, is used in the decoration of the table and displayed in china dishes, care should be taken that the colour of the flowers used does not clash with that of the dishes, or with that of the coloured silk used in some cases for the centre of the table.

There are not many flowering plants suitable for table decoration. *Begonias Gloire de Lorraine*, *Agatha*, and *John Heal* are certainly the most useful in pink shades. *Primulas*, white or pink, *Salvia splendens*, *Cyclamen persicum*, in small pots, also may be used during the dull winter months; bulbous-rooted plants are mostly too heavy, with the exception of *Roman Hyacinths* and *Lily of the Valley*. Of berried plants, *Rivina humilis* is one of the best. *Reidia glaucescens* is also a very graceful plant for this purpose. For an autumn dining-table, brightly-coloured foliage and berries can be effectively used by a tasteful decorator.

One of the most beautiful flowers for a breakfast or luncheon table undoubtedly is *Ipomoea rubro-cerulea*, arranged with light fronds of *Adiantum cuneatum* in small vases with a medium-sized plant of *Pandanus Veitchii* or *Cocos* as a centre-piece if necessary. Sweet Peas, when the colours are properly blended, are amongst the best of flowers for summer table decoration; a lovely arrangement consists of the Sweet Peas *Lady Nina Balfour* and *Hon. Mrs. E. Kenyon*, with *Adiantum gracillimum* as foliage: this, of course, for a luncheon-table. For a table under artificial light, a combination of Sweet Peas such as *Prince of Wales* and *Lovely* with *Gypsophila paniculata* is very effective. Roses are certainly the most popular flowers for this, as for most decorative work; when Roses are used, they should be cut with stems as long as possible, and arranged with their own foliage. Generally, only one variety should be used. Nothing looks better than well-coloured *Maréchal Neil*, though there are numbers of others in different shades as good. Most of the single Roses adapt themselves splendidly to dinner-table decoration.

Among other summer flowers suitable for the work are *Shirley Poppies*, *Godetias*, *Lavatera splendens* and *alba splendens*, *Coreopsis*, &c. For the autumn months many of the single varieties of *Chrysanthemums* may be combined with long trails of *Ampelopsis Veitchii* with very good effect, and also such varieties as *Source d'Or*, an old sort but still one of the best for this purpose. Later in the year such combinations as *Salvia splendens* and *Roman Hyacinths*,

*Carnation Winter Cheer* and *Lily of the Valley* (from retarded crowns with own foliage), *Calanthe Veitchii* and *Lily of the Valley*, with Fern fronds or *Asparagus* as greenery, are all beautiful. Another very effective table decoration consists of long trails of *Rhodochiton volubilis* laid on the cloth, and blooms of *Lasiandra macrantha* dropped carelessly thereon. If any plants are necessary with this arrangement they should be such as *Aralia Veitchii* or *gracillima*. With the spring months come a wealth of flowers well suited for table use. *Narcissus* in many varieties, *Tulips*, *Freemias*, and *Cyclamen* are some of the best; the *Narcissi* are best arranged with their own leaves. Amongst the many varieties of winter-flowering *Carnations*, *Winter Cheer* is still the most useful, though rather smaller than some of the newer American ones. For a large table *Malmaison Carnation Princess of Wales* is deservedly popular, and in much demand during the London season. *Orchids* *Cœlogyne cristata*, *Cattleyas* in variety, *Cypripediums*, *Oncidium*, *Odontoglossums*, and *Calanthes* (the last-named, perhaps, the best) may all be used, when at command of course, separately. Whichever flowers are used in the decoration of a table, they should be so arranged that the individuality of each bloom is retained; if this is borne in mind there will be little danger of overcrowding and consequent heaviness. E. W. DIX.

Head gardener to Sir B. Baker, K.C.B.  
Bowden Green, Pangbourne, Berks.

## THE EDITOR'S TABLE.

### THE SATIN FLOWER AND SNOWFLAKE.

Mr. George Hart, Woodside, Howth, County Dublin, writes: "I send you some blossoms of *Sisyrinchium grandiflorum*, also some of the Spring Snowflake (*Leucojum vernal*), which have been flowering here out of doors very well this mild winter. The *Leucojum* came in before New Year's Day, and the *Sisyrinchium* about the 7th inst. The *Leucojum* is very sweet scented, somewhat suggesting Hawthorn, but I am afraid the scent will be lost before the journey is over."

[We were pleased to see two flowers which suggest the passing of winter. The *Sisyrinchium* is very charming in a sheltered place, where its purplish colouring seems to glisten in the sun.—Ed.]

### FLOWERS FROM THE OPEN GARDEN.

"B. M. B." writes from Kempston Hoe: "I am tempted by the article on 'Hardy Winter Gardens' in THE GARDEN of the 13th inst. to send you some outdoor flowers from my garden picked on the 14th inst., about twenty different varieties altogether. I doubt though whether there are 'hardy plants by the hundred with which to bridge over the period of desolation

which begins with the fading of the Chrysanthemum. The fact is that few people take thought for the winter at all, or do more than rejoice over the casual blossom of a Primrose or the Wallflowers peeping here and there, or the single plant of *Jasminum nudiflorum* on an otherwise bare wall. Yet many a sheltered cosy corner could be made literally a blaze of colour in the winter months by the liberal use of yellow *Jasminum*, *Wallflower Extra Early Pavisian* (of which every plant is in bud or bloom from late autumn to late spring), *Crocus Imperati*, *Iris stylosa*, *I. histrioides*, *I. reticulata*, *Galanthus ciliatus*, *Cyclamen Coum*, *Winter Aconite*, &c. The last-named when grown in beds is twice as large as the starved specimens usually seen under the roots of trees. The extraordinary mildness of this season is not alone responsible for the number of flowers now in bloom, as I have had nearly as many every January for the last five years."

[A box of fragrant flowers, which comprised *Laurustinus*, *Pyrus japonica*, *Snowdrops*, *Chrysanthemums*, *Winter Aconite*, *Crocus Imperati*, *Jasminum nudiflorum* (winter-flowering *Jasminum*), *Primroses*, *Polyanthuses*, double *Daisies*, *Limnathes Douglasii*, *Rose Fellenberg*, *Wallflowers*, *Pansies*, *Violets*, *Iris stylosa*, and the *Lenten Rose*.—ED.]

## PRIZES FOR GARDENERS.

### AWARDS IN THE DECEMBER COMPETITION.

THE first prize for an essay on Table Decoration, in the competition announced in THE GARDEN during December, is awarded to Mr. E. W. Dix, The Gardens, Bowden Green, Pangbourne, Berkshire; second, Mrs. Charles Williamson, Wilestead, Ethelbert Road, Canterbury; third, Mrs. H. Dashwood, 8 Sibbington House, Wansford, Northamptonshire; fourth, D. B. Crane, 4, Woodview Terrace, Archway Road, Highgate, N. The first prize and the second prize essays treat the subject from two different standpoints, so that we shall publish both. The paper written by Mr. Dix will be found on another page of this issue, that by Mrs. Williamson will appear next week. Many excellent papers were received, and the prize awards were made only after very careful consideration of the essays. The commended papers are little inferior to the prize-winning essays. Competitors whose work is thought worthy of commendation are the following. All sent very good essays:

Miss Lillian Tobin, The Heath, Alcester, E.S.O.; Alexander Allan, 18, Rippingham Road, Withington, Manchester; Mrs. Atkin, 6, Hollybank Road, Sefton Park, Liverpool; A. Hemsley, Knowles Hill Crescent, Lewisham; James Wescott, Penalverne Gardens, Penzance; Walter Brookhurst, Mount Pleasant, Ruthin, N. Wales; E. Ball, Elmcliff, The Drive, Bognor; The Misses E. and M. Curle, St. Cuthbert's, Melrose; George Norris, 8, Wycherley Street, Prescott; Charles J. Greed, The Gardens, Forest Farm, Winkfield; Mrs. Kate Hutley, Easterfield House, Withersnes, near Hull, Yorkshire; M. Millard, Hartley Wintney, Winchester; W. J. Skinner, The Hut, Bray, Berkshire; C. W. Young, Welbeck Abbey, Workop; J. B. Allan, The Gardens, Ashurst Park, Tunbridge Wells, Kent; Hilda M. T. Thomas, Herbrandston Rectory, Milford Haven, Wales; H. Tomalin, Tower Hill House Gardens, Kingsclere, near Newbury, Berkshire; H. E. Hanley, Heythrop Gardens, C. Norton, Oxon; Miss E. A. Perkins, The Limes, Stratford-on-Avon; G. Berry, Helme Lane Apley, Meltham, Huddersfield; Alfred Gardner, Marktsteinstrasse, bei Stiglitz, Berlin; H. Andrews, The Gardens, Karaham Hall, near Bungay, Norfolk; Miss Leslie Williams, Swanwick Cottage, Bath; Mrs. F. W. Oerrel, Wapewide, Gelderland, Holland; G. S. Jordan, Bodorgan Gardens, Anglesea; J. Cumber, The Gardens, Nymans, Crawley; F. C. Noton, Burleigh Hall Gardens, Loughborough; Thomas Smith, The Gardens, Llyn Madoc, Garth, E.S.O., Brecon; Alfred Cheffins, Newbold Revel Gardens, Rugby; Arthur F. Ford, Bigdons Hall, Dunrover, Essex; F. C. Cox, Yew Tree Cottage, Linthurst, Blackwell, near Bromsgrove; G. Robinson, Tanglewood, South Godstone, Surrey; W. H. Scott, The Harrogate, Telford, Berkshire; A. J. Morgan, The Gardens, Bilton, East Budleigh, Devon; George Cadell, 20, Murrayfield Drive, Murrayfield, Midlothian, N.B.; Mrs. O. Meadows, Oxhey Grove, Harrow Weald, Middlesex; Mrs. J. H. Hooker, Cornfield, Cranston Road, East Grinstead, Sussex; Herbert Fry, Beedingwood, Horsham, Sussex; Miss Dickson, The Chanoury, Elgin.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

February 6.—Meeting of the National Amateur Gardeners' Association.

February 9.—Annual Meeting of the Royal Gardeners' Orphan Fund.

February 13.—Royal Horticultural Society's Annual Meeting 3 p.m., Meeting of Committees 12 noon; Horticultural Club, Annual Meeting 5 p.m., Annual Dinner 6 p.m., Hotel Windsor.

February 14.—East Anglian Horticultural Club Meeting.

**Show of winter-flowering Carnations.**—With reference to previous correspondence, February 13 has been fixed by the council of the Royal Horticultural Society for this show. Three classes of exhibits have been suggested: viz., those occupying 5 feet, 15 feet, and 30 feet of tabling respectively, thus providing for the requirements of small, medium, and large growers. Exhibits, which may be either Tree Carnations or Malmaisons, or both, may consist of cut bloom, plants, or both together, with Carnation foliage, or other small foliage plants. The council will grant medals, &c., to any of the groups, classes, or exhibits which they may think worthy of that distinction. They will also give certificates to blooms of new varieties of Tree Carnations or Malmaisons of sufficient merit "not yet in commerce," not less than six blooms to form an exhibit. Notification of intention to exhibit and of space required should be sent on or before Thursday, February 8, to the Secretary, Royal Horticultural Society's Hall, Vincent Square, Westminster, S.W.—HAYWARD MATHIAS, *Thames Ditton, Surrey*.

**Rainfall in Cheshire.**—The rainfall in this district for the year ending 1905 was some 2 inches below the average. Diameter of gauge, 5 inches; height above ground, 1 foot; 114 feet above sea level.

Month.	Total depth.	Greatest fall in 24 hours.	Number of days with 0.1 or more recorded.
	Inches.	Depth.	Date.
January ..	1.88	0.35	4 .. 18
February ..	1.85	0.30	25 .. 21
March ..	3.26	0.76	23 .. 24
April ..	2.36	0.52	6 .. 17
May ..	0.69	0.31	1 .. 7
June ..	2.53	0.80	17 .. 13
July ..	1.97	0.58	26 .. 12
August ..	3.99	1.08	25 .. 20
September ..	2.41	0.70	9 .. 15
October ..	2.78	0.56	17 .. 17
November ..	3.22	0.46	10 .. 20
December ..	0.48	0.12	5 .. 14
Total ..	27.61		198

We experienced a drought in May, no measurable rain being registered for a period of fourteen days. Highest maximum temperature in the shade, 89° on July 8; lowest mean temperature, 12° on November 19.—W. H. JENKINS, *Wythenshawe Gardens, Northenden, Cheshire*.

**"The Chrysanthemum."**—This book is one of the latest additions to Chrysanthemum literature, and is by Mr. Arthur Herrington, well known as an expert cultivator here and in America. It is published in New York, and treats of this popular flower exclusively from the point of view of American growers. For this reason it cannot possess the interest for European growers that it does for these for whom it is especially written. Yet it has many points which cannot fail to be useful to English growers. Culture for exhibition is very lucidly explained. A chapter is devoted to the best soil mixtures, which cannot fail to be useful to all growers. Contrary to the practice in this country, the plants are planted out on benches, and this seems to be the popular method of culture in America. In the chapter devoted to general cultural details the questions of ventilating, watering, tying, side shoots, and suckers are each dealt with in turn,

and these points are clearly and lucidly explained. The most important aspect of the book, however, is that dealing with crown and terminal buds. This is a matter which, in this country, is very indifferently considered by writers, but Mr. Herrington has taken considerable pains to explain the terms, both by his writing and by excellent photographs. As the exhibition of large blooms in vases in America is largely practised, the method of carrying the blooms to the shows is very clearly shown in a photograph, in which exhibition Chrysanthemums are properly packed for a journey. This should assist English growers in determining how to deal with their blooms when exhibiting in the vase classes which are now so popular. The culture of Chrysanthemums in 6-inch pots is also very carefully considered. It is interesting to know that, probably owing to the efforts of American growers, this method has of late years been largely followed in this country. Commercial culture, which until recent years was not scientifically considered, is very fully dealt with in Mr. Herrington's book. The book contains many excellent illustrations.—C.

**Horticultural Education Association.**—This newly-formed association is now fully constituted, and doubtless will do a great deal of good. The chairman is Mr. A. E. Brooke-Hunt, and Mr. Walter P. Wright is acting as hon. secretary and treasurer. Full particulars may be had from Mr. Wright, whose address is Postling, Hythe, Kent.

**Proposed new park for Glasgow.** In pursuance of their policy of securing available land in the outskirts of the city, the Glasgow Parks' Committee have agreed to recommend the corporation to purchase the estate of Yorkhill, which consists of a mansion house and grounds, the latter extending to about 3½ acres. The estate will cost £80,000, but by leasing 10 acres of this, and the 6½ acres which formed the site of the machinery hall of the exhibition of 1901, it is expected that a balance of £25,000 will remain in favour of the city after providing 2½ acres for the new park.

**A new school of gardening.**—Miss May Crooke, late instructor in horticulture at Lady Warwick College, Studley Castle, and Lady Warwick Hostel, Reading, has, through the kindness of Miss Zula Woodhull of Norton Park, obtained a suitable garden for horticultural instruction at Bredon's Norton, near Tewkesbury. Miss Crooke will take a limited number of students, either resident or non-resident. The walled garden is fully equipped with glass houses, Mushroom house, heated pits, and a fine selection of fruit trees, and will afford facilities for horticultural instruction in all branches. Miss Mabel Carlyon will be assistant instructor. Miss Crooke is open to engagements for lectures, and to give advice as garden expert in any district. The Bredon's Norton School of Gardening opened the second week in January.

**Notes from a Kent garden.**—What extraordinary weather! After a most furious storm last night we have had a lovely spring day. One of the little Pear trees shows signs of blossom, some of the Rose trees have large buds of last year and plenty of leaves, while others are unfolding their new leaves. Alas! for the wreckage after spring frosts. I can endorse many of Mr. Goodwin's remarks about Roses, e.g. I raised a Maman Cochet from a cutting. It has grown into such a large bush that I have had to take it out of the bed and set it by itself on a grass plot, where it can spread as much as it likes. White Maman Cochet last autumn threw out a large branch with abundance of plump buds, but they all damped off, and not one good flower did I get. Innocente Pirola, The Bride, Mme. Lambert, and Catherine Mermet were practically failures all through the summer. L'Innocente was the only white Rose that was thoroughly reliable.—W. J. CHAPMAN, *Tunbridge Wells*.



**"The Garden Album."**—"The Garden Album and Review" is the title of a new monthly gardening magazine. It is edited by Mr. John Weathers, author of "A Practical Guide to Garden Plants," and is published by Simpkin, Marshall, and Co. The price is sevenpence. The first number contains sixteen pages of literary matter and four coloured plates. The contents comprise original articles on gardening subjects, descriptions of new plants, and a selection of interesting notes and articles reprinted from other gardening journals. The coloured plates are of new hybrid Irises, Impatiens Olivieri, Rose Frau Karl Duschki, and Diervilla florida "Eva Rathke." The first and the last are the best, the plate of hybrid Irises being quite faithful and very beautiful. "The Garden Album" has made an excellent start, and should soon find an appreciative public.

**Journal of the Kew Guild.**—The Kew Guild is an association of Kew gardeners, past and present. The journal is an annual publication of interest chiefly to those who are members of the Guild. The volume for 1905, which was recently published, is full of entertaining particulars of Kew and Kew men, and will be eagerly welcomed by those members of the Guild who are scattered in the remotest corners of the earth, as many of them are. The frontispiece to the present volume is a portrait of Mr. Walter Fox, superintendent of the Botanic Gardens and Forests in Penang. He has a record of twenty-seven years' service in the islands of Singapore and Penang. Mr. Fox is, therefore, with one exception, the oldest Kewite in the Colonial and Indian services. The journal, as usual, contains some interesting letters from Kew men in the Colonies and foreign countries, and letters from Asia, Africa, America, and Australasia full of incident and adventure. The Guild has lost several prominent members during the last year, among them being Mr. Charles Moore, Mr. Barbridge, Mr. O. T. Hemsley, Mr. Daniel Dewar, Mr. Charles Berryman, Mr. Leslie, and others. The total number of life subscribers is now 210. Mr. W. J. Bean, the assistant-curator of the Royal Gardens, acts as editor of the journal, and keeps the contents bright, varied, and of more than ordinary interest.

**Lady gardeners at work.**—I recently paid a visit to the grounds of the Horticultural College, Swanley, where I found much of interest. There are upwards of seventy lady students, and some men are also employed, yet the ladies take their full share of the work, even to stoking the fires and taking Sunday duty. I found some planting fruit trees, others trenching ground, others were manuring the lawns, and some were in the glass houses cleaning and rearranging the plants. All were doing their work in a business-like manner. The ground has recently been divided up into plots, and each plot is worked by about seven students, one of the seniors taking the lead; this is found to give each a better opportunity of observing the various crops from start to finish. A register is kept of all work done, from sowing the seeds onwards until the crops are cleared. The grounds are extensive, and afford ample opportunities for carrying out various experiments. One range of glass houses is given over to experimental culture, while the larger range of houses is devoted to growing crops for market. At the entrance to each house there is a slate, upon which are recorded the dates for cultural work from the time of taking cuttings onwards. In the case of Chrysanthemums, for instance, there are the dates of putting in cuttings, when potted, when put out of doors, when taken in, time of disbudding, and time of flowering. With Vines and Peach trees, all work done, and the dates, are duly recorded. Some of the students were busy cleaning and dressing Vines, and they seemed to enjoy the work. The Peach trees were all pruned and tied in ready for starting. Several plants are grown as well as in the

market nurseries. Chrysanthemums were nearly over, but sufficient were still in flower to show that they were well grown. Everything was in remarkably good order, reflecting much credit on Mr. Lawson, the superintendent. The students work six hours a day, regular courses of lectures are given, and time allotted for private study. Hockey and various other healthy outdoor amusements are indulged in.—A. HEMSLEY.

**Chrysanthemum Bronze Thompson.**—The accompanying illustration shows a new Chrysanthemum called Bronze Thompson, which was awarded the silver medal as the best new market Chrysanthemum at the exhibition of market Chrysanthemums held a few weeks ago. It is a sport from the yellow Mrs. Thompson, a Japanese incurred with terracotta bronze petals. The flowers are of good size and freely produced. It was exhibited by Mr. Isaac Godber, New Town Nurseries, Bedford.

**Rose notes.**—From the list of Roses you kindly gave me I have selected Paul Lede, Grand Duc de Luxembourg, Prince de Bulgarie, Earl of Warwick, Sulphurea, Joseph Hill, and Comtesse Cayla. Besides these I have planted Farben Königen, Etoile de France, Perle von Godeberg, Marquise de Salisbury, Duchess of Portland, Hermosa, Leonie Lamesch, and Soleil d'Or. As I have been asked for the name of the Rose I so strongly recommended, would you oblige by inserting just a line to say it was Mme. Abel Chatenay. I note that Mr. Arthur Goodwin writes that it is subject to mildew. My experience is the reverse, and in a recent number of THE GARDEN Mrs. Louisa Wakeman, Newport, writes that Gräfin an Teplitz is one of the worst Roses for mildew at Hanley Court, while Mr. Goodwin says that it is mildew-proof. I suppose that soil or situation makes the difference. It is a most interesting subject, and deserves careful enquiry in different parts of the country. I have been very much interested in Mr. Goodwin's notes, and trust that they will be continued. New Roses are now being sent out in such quantities that we want up-to-date information. Such Roses as Paul Neyron appear to have no sale now, the Hybrid Teas are ousting the Hybrid Perpetuals.—W. J. CHAPMAN, *Eldene, Sandhurst Road, Tunbridge Wells.*

**Huntingdon Daffodil Spring Flower Society.**—In forwarding the schedule of the first exhibition of this society—which will be held in the Corn Exchange, Huntingdon, on April 19 next—Miss L. L. Linton, honorary secretary, writes: "This is our first show, and I am very anxious to make it a success, and to bring it to the notice of your readers. We want to encourage people to grow more Daffodils in these parts, so we want to get exhibits from others not in the district, to show what can be grown." The schedule is divided into two parts, the first including classes for cut blooms of Narcissi (open to all amateurs), and the second classes for spring flowers (open to all amateurs). Non-competitive exhibits are invited from nurserymen. Miss Linton, Surtloe House Backden,

Huntingdon, will send full particulars to anyone interested in this newly-formed society, which we hope may have a prosperous career.

**Gift to the Royal Botanic Society of London.**—A gift of £1 000 from a Fellow (Dr. Robert Barnes) has been received by the council as a mark of confidence in their administration, and in memory of his father, Mr. Philip Barnes, one of its original founders.

**A new ornamental grass.**—Pennisetum macrophyllum atropurpureum is one of the finest introductions of last year. It is an ornamental grass of striking appearance on account of the deep red-brown colouring of the long elegantly-disposed leaves, and the beautiful silvery rose colouring of the flowering heads; these stand out in fine contrast to the leaves. Appearing as they do in large numbers, a plant in flower is a most handsome object. This Pennisetum



NEW CHRYSANTHEMUM BRONZE THOMPSON.

is a half-hardy perennial, and must be wintered safe from frost. It makes new shoots quickly if given slight warmth in spring and, if hardened off and then planted out of doors in a rich soil it quickly develops into a valuable decorative plant. It deserves a place in every garden. A correspondent of *Möller's Deutsche Gärtner-Zeitung* says that a bed of this grass in a Darmstadt garden was much admired. It is recommended as a valuable decorative plant either for grouping or for planting singly on the lawn.

**The Ghent Quinquennial Exhibition.**—The next of the famous quinquennial shows of the Ghent Botanical and Agricultural Society will be held from April 26 to May 2, 1908. This continental flower show is, perhaps, unique in its magnificence, and always attracts a large number of British horticulturists. M. Fierens, the secretary, will send particulars of the preliminary arrangements upon application.



## THE FLOWER GARDEN.

### DECORATIVE CHRYSANTHEMUMS.

**I** THINK that the class of Chrysanthemums generally known as decorative varieties are distinctly more serviceable than those cultivated for producing large flowers in November. Though these find numerous admirers and are useful in many cases, I think if our annual Chrysanthemum exhibitions are to be well maintained much more encouragement must be given to the smaller and more naturally grown plants. For home use these are far more valuable and lasting than those which have been highly fed and cultivated for producing the largest possible blooms. Medium-sized, well-grown bush plants in 7-inch and 8-inch pots make a splendid show when well arranged, and for cutting purposes they are invaluable. We have grown some hundreds in this way for several years, and have this season grown them even more largely, and by making a good selection we had a fine display from the end of October until quite the end of January.

The chief point to aim at is to grow those varieties which are distinct, bright, and pleasing in colour, which throw up their flowers well above the foliage, and stand erect. White, yellow, pink, bronze, and reds of decided colours are the most favoured, and they include Pompon, Pompon Anemones, singles, reflexed, and many of the Japanese and thread-petalled varieties. I find it much better to grow a large number of plants of the most distinct sorts rather than a long list of varieties. Few things make more charming table decoration during the winter when blended with suitable foliage under artificial light, and nothing looks better in a cut state for the embellishment of rooms. Like the majority of plants, these most certainly pay for good cultivation.

Cuttings should be struck during February and March singly in 2½-inch pots, and receive three shifts—into 3-inch, 6-inch, and, finally, 7-inch or 8-inch pots in June. The points of the growths should be stopped three or four times, and the plants grown in an open, sunny position, allowing ample room between them, and removing them to a place of safety by the middle of September. The latest varieties should be kept out of doors, but well protected till the first or second week in November.

Give manure water liberally from the time the pots become well filled with roots till they flower. For the benefit of those who contemplate making a start with these, I append a list of varieties I have found to be favourites during November, December, and January. Though, of course, there are many others equally good, I mention those only which are growing here.

Among the best singles are Mrs. J. French, Miss Mary Anderson, Mrs. D. B. Crane, Scarlet Gem, Earlswood Beauty, Yellow Jane (a fine dwarf variety), Ladysmith, Kate Williams (a fine late yellow), Golden Star, and King of Siam (one of the best yet raised). Pompons, including Anemone Pompons, we like are William Sabey, Harry Hicks, Jennie Hatchett (a beautiful white with a fine Anemone centre, somewhat large for this section, but one of the most useful), Dolly, Snowdrop, William Westlake, Bessie Flight, Perle des Beauté, Osiris, Primrose

League, Lottie Penford, and Eugenie Languet. Among the very best we have found for late flowering are L. Canning, Golden Gem, Framfield Pink, Duchess of Manchester (extremely beautiful), Jessica (one of the purest whites), King of the Plumes, Sulphur Nipheus, Market Gold (a grand yellow), Mrs. Filkins, Boule de Neige, Princess Victoria and its two sports Golden and Pink, W. H. Lincoln, Nellie Bean (very pleasing), Allman's Yellow, Niveus, Matthew Hodgson, Hon. Mrs. Acland, and Source d'Or and its crimson sport.

*Elstree.* E. BECKETT.

### GLADIOLUS HOLLANDIA.

(PINK BRENCHELEYENSIS.)

Now that the season is fast approaching when seeds, &c., must be ordered, I would advise all lovers of Gladioli to procure this sterling novelty. It may safely be described as the finest Gladiolus yet out, growing to a height of 4 feet, with sometimes as many as thirty-five flowers of a charming pink shade tinted yellow. The spike is narrow, as in the scarlet form, and is most graceful and elegant. The flowers are well arranged on the spike, neither too close together nor too wide apart. It has also the good property of giving a great many open flowers at one time. The lack of this latter quality is the only fault one can find with the otherwise beautiful Childsii section. A bed of this new variety was greatly admired here last autumn. Visitors immediately singled it out from a large collection of other sorts. I would advise planting it in a west border, as the lovely colour then is more lasting. It is a strong grower, and seems to increase rapidly. As its name would suggest, it has been raised in Holland, and is catalogued by only a few firms in this country as yet.

THOMAS HAY.

*Hopetoun Gardens, Queensferry, N.B.*

### SCARLET FLAKE CARNATION JOHN WORMALD.

THIS fine variety was raised by Mr. H. W. Weguelin in 1893 at Shaldon, Devon. It was, in the first year of its production as a seedling, considered by one of the first experts in Carnation culture the best scarlet flake in existence. As a show flower it was awarded the first, second, and third prizes at the Crystal Palace in 1898, was premier scarlet flake in 1899, and has beaten all other varieties in its class whenever shown in competition.

It is, unfortunately, not a robust grower, and the colouring is inclined to run. Probably for this reason it has by many growers been discarded, but this beautiful variety deserves to be better known and grown, as the excellence of its blooms far outweighs its other shortcomings.

*Oakleigh, Cheam, Surrey.*

H. R. TAYLOR.



THE NEW GLADIOLUS HOLLANDIA. (Much reduced.)

[Our correspondent kindly sent a coloured plate to show the strongly-marked colouring of the flower.—ED.]

### THE HOLLYHOCK.

ALTHOUGH the Hollyhock is a much hardier plant than the Dahlia, it cannot be so freely propagated. The cuttings take longer to form roots and growth is slower afterwards, and unless the spring cuttings are carefully propagated they would not form roots in time to give good flowering plants, or they might not bloom at all. The preparation of the ground is also of much importance, and this should be seen to in the autumn. The Hollyhock is a gross feeder and requires a deeply-worked soil with a good dressing of farmyard manure, and when the ground is trenched up in the autumn, the winter weather prepares it for planting in April or early in May. The young Hollyhock plants should have been well inured to the open air before planting them out, and the operation of planting should be performed when the weather is mild and the ground dry. The permanent sticks must also be placed to the plants at the time of planting out; indeed, it is much better to drive the sticks firmly into the ground before planting, and dig out holes in front of the sticks into which should be placed some prepared soil, such as is used to pot Pelargoniums, to give the plants a start. The plants must be tied to the sticks as soon as they have grown a little, and it is a good plan to mulch around the roots with a little decayed manure; this keeps the soil moist, preserves a more equable temperature over the roots, and the plants will make a much better growth. As the season advances, dry weather will set in and water at the roots will be needed, but it will also be desirable to syringe well underneath the leaves to keep off red spider.

The first appearance of the fungus is the signal for an attack upon it; if it is taken in time some good may be done, but when it has spread widely over the entire collection of plants, the case is

hopeless. It requires a good stout stick to hold a well-grown Hollyhook plant in position, and as the spikes advance in growth, they must be securely fastened to prevent their being snapped in a high wind. A good strong plant will throw out many side growths, and it is usual to remove these, so that all the strength of the plant may be thrown into the centre spike. Upon the side growths there are also numerous flower-buds, but at the base of each there are a few leaves with leaf growths at their axils; all these may be taken and cut out as Vine eyes are treated for propagation, and if inserted singly in small flower-pots, they will soon form plants in a very mild heat if covered with a garden frame. The dead and decaying flowers should be removed from the plants, as they not only have an untidy appearance, but also cause the seed-pods to decay.

Seedling raising is also an important and interesting part of the cultivator's work. I sow the seeds in May, and they form strong plants for flowering the following season. They may be sown out of doors, or, what is better, in a frame over a hot-bed. The seeds are more likely to vegetate well in that position, and the seedlings can easily be pricked out into boxes to be transferred to the open borders as soon as they are large enough. They ought to be planted where they are to flower in good time, so that they are well established before the winter. Seedlings are seldom injured by frost. D.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### CLEMATIS DAVIDIANA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have been much interested in reading the different accounts of that little known but lovely plant with blue flowers, *Clematis davidiana*. I quite agree in thinking it is somewhat difficult to grow, as my plant did not

flower last year, though it was in a very sunny position, but rather exposed to the south-west wind, which blows very strongly here at times, near Shrewsbury; so it evidently prefers a sheltered corner, as it grows well in that charming garden at St. Nicholas House, Scarborough, which formerly belonged to Mr. Woodall but has now been bought by the County Council and thrown open to the public. The gardens have been most cleverly laid out in a series of terraces down the face of the cliff facing south-east straight on to the seashore, and contain many nooks and corners in which grow and flourish many rare and precious plants, among others that lovely pink *Crinum C. capense*. All these grounds were originally planned and laid out by Mr. E. Woodall, who is now the happy possessor of a still more lovely garden near Nice, which was formerly a vineyard, on both sides of a narrow valley, and here plants grow and flourish as they do in the Riviera.

MABEL MEYRIK PRYCE.

### COOKING POTATOES

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I would not have written to you on the question of the cooking of Potatoes if I had not, in relation to the subject, unusual experience. I have been a grower

of Potatoes for some forty-five years, and during that time have constantly tested the table qualities of new varieties, as well as older ones. During the time I have been a member of the fruit and vegetable committee of the Royal Horticultural Society I have attended every cooking test of the leading varieties grown for trial. I had the tasting, last autumn, of fifty diverse lots cooked at Marks' Tey, a very unusual experience. All this experience has, and does, lead me to the conclusions I previously made public in these columns. There is even yet another reason; it is that there is so much latent disease in Potatoes that until peeled it cannot be noted, and tubers cooked with their coats on would be objectionable served to table materially spotted. It is of importance to note further that those who so greatly praise Potato skins never eat them when cooked. They know better than to do that. A. D.

### UNFIXED NOVELTIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am glad to see "J. S." drawing attention in your columns to a growing evil in the horticultural world, viz., the sale of novelties in an utterly unfixed condition. This applies not only to Sweet Peas, but to other annuals as well. Unfortunately, the practice of our flower shows lends itself to the spread of this habit, for there is a widespread belief that if a variety receives any official award it is necessarily good. We are gradually being taught, however, that the specimens exhibited are not required to be representative of the progeny their seed will give rise to. I am speaking here of annuals, and not of vegetatively propagated perennials. My own experience is, I fear, typical of that of many others in this way. I must content myself with describing one case only, that one being the worst of a series. In 1903—at the Holland House Show, if I remember right—a beautiful bunch of the now notorious Sweet Pea Countess Spencer tempted me to buy seeds. On the packets when they arrived was the information that the "variety" sported a little. This description proved altogether too modest, for out of some

fifty plants two resembled the type exhibited at the show. Seed saved from these faithful ones repeated the phenomenon in the following season. I need not describe the various types this "variety" threw, for all who grow Sweet Peas know by now the origin of John Ingman, Orange Countess, &c. These sports in the following season proved as fickle as their parent. This fact was, I believe, generally known before the last show of the National Sweet Pea Society, yet it did not deter the judges from giving awards to such sports. There is, however, one gleam of hope in the situation, and that is that the aggregate vote of the members of this society which places the different varieties in their order of merit rejects the parent of these sportive forms! Next season's judging should prove full of interest. With such an example before one, I can but think that the suggestion made by "J. S." is most opportune. Every exhibitor for certificates of merit or other awards should be required to guarantee the fixity of his novelty, or, at all events, give reliable statistics as to what may be expected of its progeny. Those who purchase the seeds of such novelties would then be placed in a far more satisfactory position than they are at present, and that of itself should prove advantageous to the sellers as well. Cambridge. A VICTIM.}j

### A HARDY PLANT SOCIETY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The proposal of "Heather Bell" to form a hardy plant society is one which has been before the flower-loving public for some time, and has failed to take a concrete form, not because of any feeling that such a society has not an ample field for its operations, but simply because no one has as yet been able to find time or opportunity for taking the first steps in connexion with it. Some two or three years ago, I was approached on the subject, and intended taking steps to call a meeting, but other pressing matters prevented my doing so. A hardy plant society should not be a London society; it must be truly a national one, encouraging the cultivation of hardy flowers by work of various kinds in different centres



A GROUP OF DOUBLE-FLOWERED HOLLYHOOKS

throughout the United Kingdom. Now this would mean a considerable call upon the time and energy of any man, for it must be remembered that the work of a hardy plant society covers a much wider field than that of any of the special flower societies.

I have little doubt, however, that sufficient support would be forthcoming, if the society were once launched, to make an important move forward, and that its operations would tend to a still greater increased interest in hardy flowers. A combined effort on the part of private and trade growers would result in a society which could do much to further the cultivation of hardy flowers, and assist the various other societies which promote horticulture generally, and which include within their operations the flowers in which this society would be entirely interested. There are, for example, many questions regarding staging, judging, classification, &c., upon which the society could advise or give substantial assistance; while it might institute special classes at the larger shows and offer good prizes in connexion with these. What is principally required is an energetic secretary who has time, and is within a reasonable distance of the various centres from which its operations could be conducted. Could such a man be found the success of the society would be easily assured.

Sunny-mead, Dumfries, Scotland.

S. ARNOTT.

### CYCLAMEN LOW'S SALMON AND SWEET-SCENTED FORMS.

[TO THE EDITOR OF "THE GARDEN,"]

SIR,—We notice your correspondent's remarks (page 18) on our new Cyclamen Low's Salmon, and it may interest him to know that we obtained the colour of our variety, which is of the giganteum strain, from the very sort he mentions. Low's Salmon is now some generations old, and of the colour obtained from the small variety mentioned the giganteum blood has proved itself constant. In your issue of the 6th inst. your correspondent refers to a sweet-scented variety. His remarks are quite true; we also have a sweet-scented strain which is white in colour, but we notice that the sweetest flowers lose the giganteum type.

HUGH LOW AND CO.

Royal Nurseries, Bush Hill Park, Enfield.

## THE ROSE GARDEN.

### ROSE STOCKS BUDDED LAST SUMMER.

[In reply to "J."]

THE wild growth must not be cut away at present unless you require the shoots for cuttings. If you should do so, there will be no harm in removing some of the ripened growths from either the standard Briars or the Manetti stock, but, as it is now too late for this work, probably you will not trouble about them. The correct time to cut back the budded stocks is in February in mild weather. The standards and half-standards are usually cut back to within about 3 inches or 4 inches from where the bud is inserted, and any wild growths that are not budded are removed quite close to the main stem. The object of leaving a small portion of the Briar shoot above the inserted bud is that the young growths of the Briar serve to draw up the sap, which has the effect of starting the inserted buds into growth. These Briar growths are not allowed to develop more than about 2 inches before the points are pinched out. About May, when the Rose buds are well developed, the wild shoots are entirely removed, and in June the Briar growth in which the bud is inserted is cut back close to the Rose growth, when it imme-

diately begins to callus over, so that by the autumn the wound is quite healed. Before the Rose shoot has grown much, a "stave" in the form of a flat stick is tied on the Briar, so that when the Rose shoot needs support it is tied to this stake. The dwarf stocks, both Briar and Manetti, are cut back quite close to the inserted buds in February. Sticks or Bamboo canes are placed close to the stem, and the young shoots of the Rose tied to the sticks as soon as they need support. As you grow for exhibition, do not pinch the shoots to make them bushy, as the finest blooms usually appear on these maiden shoots. Sometimes when May frosts have injured the young shoots it is advisable to pinch them back.

With regard to those that are now grown out, cut them back almost to their base at once. You will find a powerful pair of secateurs strong enough for the work of cutting back, but if a few are too thick a small pruning-saw may be used, the wound afterwards being smoothed over with a knife. Sometimes the stem-borer is very troublesome upon budded standard Briars, the pest boring right down the pith of the Briar. To check this point over the top (when you cut back the Briar) with some painter's knotting or grafting-wax. You appear to have well prepared the soil before planting the stocks, and we should say that no further manuring will be required until February. During that month give the ground a dressing of Tonks' manure. This is compounded as follows: Superphosphate of lime, twelve parts; nitrate of potash, ten parts; sulphate of magnesia, two parts; sulphate of iron, one part; sulphate of lime, eight parts. Apply this at the rate of a quarter of a pound to the square yard, and it should also be given to any other Roses you may have in the garden, hoeing it or lightly forking it in. During April and May liquid cow manure should be given to the plants fairly liberally, each plant receiving from one to two gallons once a fortnight. Towards the end of May and early in June a teaspoonful of fish or other guano should be given each plant once a fortnight, watering it in well in the evening, and hoeing the ground the next day. Careful disbudding should be carried out as soon as the tiny buds are visible, but it is not wise to disbud all Roses alike. This knowledge can only be acquired by experience. As a rule, all the Victor Verdier or smooth-wooded race should have some of the centre buds removed, as, if not, they frequently come deformed. You do not say what sorts you have budded, but you will do well to keep to a few of the sterling exhibition sorts, budding these in quantities this summer; for instance, such varieties as Mrs. John Laing, Frau Karl Druschki, Mrs. W. J. Grant, &c. You would require a dozen or two of each. For the beginner in exhibiting Roses it is better to grow a few sorts than a large number.

### FRAGRANT ROSES.

ON page 277, in answer to a correspondent, the following list of Roses, which are very fragrant, is given: Cabbage, A. K. Williams, Charles Lefebvre, General Jacqueminot, Alfred Colomb, Augustine Guinoisseau, La France, Louis van Houtte, Magna Charta, Mrs. John Laing, and Gloire de Dijon. May I be allowed to supplement this list by the addition of the following varieties? Gustave Grunerwald, probably one of the sweetest of all the modern Hybrid Teas; Mme. de St. Joseph, the most deliciously scented of all the Teas; Souvenir de Gabrielle Drevet, also a Tea-scented variety; Papa Lambert, a Hybrid Tea, which has inherited the sweetness of one of its parents, viz., Marie Baumann; Farbenkönigin, an undoubted seedling from La France, and retaining a good deal of its scent; Charlotte Gillemot, Hybrid Tea; Princess Bonnie, Hybrid Tea; Johanna Sebus, Hybrid Tea, a most exquisitely scented variety. There are two Rugosae whose fragrance is delightful, i.e., Conrad Ferdinand Meyer and Rose à

parfum de l'Hay. I should advise every rosarian to grow the last mentioned as its scent is singularly delicious. That lovely Bourbon Rose Zéphyrine Dronhin is, of course, famed for its fragrance.

ARTHUR R. GOODWIN.

[I find that I have omitted Tea Mme. Berkeley, but it should most certainly be included in the above list.—A. R. G.]

### ROSE MISS WILLMOTT.

A Dainty little Rose of beautiful colour is this single Tea Rose. It reminds me, before the buds unfold, of a small specimen of L'Idéal, and it is surprising what a length of time these buds remain on the plant in the folded condition during October days. The clusters of buds, if cut when they show colour, open beautifully in the warmth of a room, and it would be difficult to find a more lovely tinted Rose for a small vase. These single Teas and Hybrid Teas have a value that must not be lost sight of, although I cannot see how they merit the award of a gold medal, for all who have had anything to do with the raising of seedling Roses know full well that there are fully 50 per cent. more single Roses produced than double ones. The variety Irish Elegance is delightfully pretty, but the wisdom of the recent award of the National Rose Society was doubted by many competent judges.

P.

## STOVE & GREENHOUSE.

### DWARF CHRYSANTHEMUMS.

DURING the past season the market has been well supplied with good dwarf plants. The best plants vary in height from 1½ feet to 2½ feet, those in 4½-inch pots having from six to nine good blooms, and those in larger pots nine to twelve on single stems. Some are grown without being disbudded, but the best are those with a single flower on each stem. It is the dwarf starchy growth that is the great feature of the market plants, and it may be interesting to note that while some of the older varieties are still grown, we have had valuable additions among the newer varieties during the last few years. The question often arises, How are these Chrysanthemums treated to get them to such perfection? Well, the first thing is the selection of suitable sorts, and it is only a comparatively small number that will prove useful, and the next is to give them undivided attention. Taking the

VARIETIES first, the earliest are those of the Mme. Masse family. The most useful is Horace Martin, one of the best early yellows for any purpose. Ralph Curtis, cream, and Crimson Masse are good. Harvest Home remains a favourite red. Goacher's Crimson is grown by some, but is hardly bright enough in colour. Mme. Desgranges is still a favourite early white, but Lady Fitzwygram makes the best plant, and comes nearly as early. Mrs. Hawkins, yellow, is succeeded by Rye-croft Glory and Nellie Brown, the bronze variety, and both extensively grown. Market White is a good early sort. La Vestal, a new variety, seen in September, would be a useful addition to the blush pink varieties. Goacher's Pink is another. Coming to sorts we see a little later, Ivory White and Pink Ivory are very good, especially as dwarf plants. I may add that the market names for these are White Star and Pink Star. Soleil d'Octobre is one of the best yellows we have for early October, and it holds out for some weeks. It grows rather later than some, but makes a splendid plant. We have a good bronze variety of this which is equally useful, and to these have been added other sports. Cricket's October and Terra Cotta Soleil, the latter especially, should be a welcome addition. Among crimsons, W. Holmes and W. Shrimpton

are both good, and a few growers still have Cullingfordi. Phœbus is a yellow to follow those named above. Souvenir de Petit Ami is a favourite white. Caprice du Printemps, purple-mauve, though not a popular colour, is grown, and makes one of the best pot plants. Kathleen

Among the whites for late work, Western King and Miss E. Fulton are good. A few growers produce Niveus well, but it is not a general favourite for pots. A. J. Balfour is a good pink but Mme. Felix Perrin (Framfield Pink), when grown well, is the best, yet not all growers succeed with

might be added to the above list, but those referred to were among the most prominent in the market during the past season (except those referred to as new varieties).

**CULTURE.**—As I have stated, careful attention is the chief essential in growing pot plants. A start must be made with strong, healthy cuttings. The stock plants require to be kept in a cool house where they get plenty of light and air. The best cuttings are those thrown up from the base; the short, thick cuttings should be selected. Propagating may be commenced any time after the middle of January, but many sorts will be better if struck later. The difficulty with early cuttings is that they make too much root for the size pots they have to be flowered in. The cuttings may be struck in shallow boxes, but they should be potted singly in small pots as soon as sufficiently rooted; they should be potted firmly in good loam with some manure added. It is not advisable to expose the plants to frost, but the cooler they can be kept the better. If allowed to get drawn up weakly in the early stages, it will be impossible to make strong dwarf plants. They should be stopped early, and if they do not make a sufficient number of shoots, they may require stopping again. As soon as well rooted round the pots they should be potted on. Compost is an important matter; the best yellow loam procurable should be used, and to this may be added some well-decayed leaf-mould, stable manure, and a liberal supply of bone-meal. Firm potting is a great point; this has much to do with securing short, thick growth. With loose potting the plants will grow more rapidly, but thinly. I may add that some of the late sorts may be grown from the tops of the young plants. These, if rooted late in the summer, will make dwarf plants. I have rooted tops after the buds have shown; these grown several together in each pot make useful plants. Liquid manure will be required to be used liberally, but it is quite possible to over-do this; and a most important point is never to allow the plants to get too dry. Disbudding should be done as early as possible, and sometimes the shoots may require thinning out, in which the weakest or any that have run up too tall should be taken off. Some growers plant out and pot them up about the time the flowers begin to open. I have seen plants do very well when treated in this way, but it is only where the ground is good and holds together well, and when planted they require to be made firm; in loose, light ground the roots spread, and they make thin growth. Some varieties also do better than others under this treatment. When they are taken up, keep them close and a little shaded for a day or two, but they soon take hold of the new soil. They must not be kept close after they have made a new start. Although this method may be carried out fairly successfully, the best plants I have seen have been those grown in pots from the start.

A. HEMSLEY.

## NEW AND RARE PLANTS.

### A NEW CYPRIPIEDIUM.

ON the 9th inst., in the Horticultural Hall, Major Holford, C.I.E., Westonbirt, Tetbury, Gloucestershire, exhibited an unusually fine Cypripedium, called *C. Alcibiades magnificum*. It is a remarkable and quite distinct hybrid, the result of a cross between *C. leeanum giganteum* and *C. M. de Curte*. The flower is broader than it is long; the dorsal sepal is some  $2\frac{1}{2}$  inches wide and not so high; the upper margin curves over, and thus still further lessens its height. In colour and marking the dorsal sepal is a good deal similar to *C. leeanum*. The petals are heavily marked with red-brown on a green



CYPRIPIEDIUM ALCIBIADES MAGNIFICUM (REDUCED).

(A new hybrid Orchid, which obtained a first-class certificate from the Royal Horticultural Society on the 9th inst.)

Thompson, a sport from the above, is a bright chestnut red, and one of the best we have. Boule de Neige is a good white. Mrs. Wingfield is one of the best pink varieties; this should have been included with those for early October.

this. W. H. Lincoln, an old variety, makes one of the finest yellows we have for late work. Mrs. Thompson is a good white. I may add Matthew Hodgson as a late crimson. Allman's Yellow makes a useful plant. Perhaps others





AN OVERFLOW OF SAXIFRAGA AIZOON.

ground; the red-brown pouch is very short and broad. The flower is borne on a short, stout stalk, and the leaves are thick and leathery. A first-class certificate was awarded to this hybrid by the Orchid Committee.

### ALPINE PLANTS IN PANS.

**A**LTHOUGH not everyone has it within his means and scope to lay out a rock garden on a large scale, with stones by the truckload, and shrubs and plants in thousands, yet anyone who has a little corner of sunny ground may grow many charming alpine; and even if one has no garden, properly speaking, there may still remain the possibility of growing these delightful plants in pans. In some respects, indeed, the pictorial value of alpine is greatly enhanced by their being grown in this manner; partly because, properly treated, certain kinds seem to flourish better thus than in the open rockery; but principally, perhaps, because one can then so easily have them placed for observation just under the eye. For the lover of flowers, who is infirm or an invalid, such a consideration may be a very important one.

The pictures illustrating this paper are reproduced from photographs of pan rockeries containing Saxifrages, Sempervivums, and Sedums. To these kinds the grower is practically almost restricted, if the word be admissible when even then such a wealth remains. These three typical alpine families, but notably the Saxifrages and Sempervivums, include numerous sorts, of minute and beautiful growth, not of rapid increase, but choice and delicate in flower, rendering them particularly suitable for planting in a miniature rockery. The Sedums or Stonecrops, generally speaking, are coarser and quicker of increase, and are better where they can be kept less within bounds. The following Saxifrages may all be said to be good sorts for pans: *Saxifraga burseriana* and its varieties, *S. apiculata*, *S. paradoxa*, *S. aizoon* in its many forms, *S. cochlearis*, *S. waldensis* (a gem for this purpose), *S. cæsia*, and *S. squarrosa*. Of Sempervivums, *S. arachnoideum* and its varieties are indispensable, while other

valuable sorts are *S. fimbriatum*, *S. Pomelii*, *S. arenarium*, and others. In the confused state of the nomenclature of this genus it is difficult to be precise in indicating sorts, but a visit to a good collection would result in the acquisition of several desirable kinds, however labelled. It must be admitted, with regard to Sedums, that the writer makes very little use of any but one—*S. glaucum*. Some growers may wish to experiment with other plants, but it will probably be found pretty generally that there are not many of the commoner things so satisfactory as those named.

These pans are made up, for the most part, with pieces of coarse, porous limestone from Derbyshire, miscalled "tufa," in reality a stalactite or stalagmite rock, and peculiarly suitable, in that its natural crinkles afford excellent foothold for the plants, which in time creep over the surface, rooting into the crevices, where they are able to obtain



A THREE-YEAR-OLD PAN.

nourishment from the stone itself or from material deposited in the crevices. Any rough-surfaced stone, however, would answer the purpose almost as well, though this qualification practically limits one to limestone, sandstone being generally too smooth; granite and flint too barren. Good results have been obtained from the use of rough pieces of hardened mortar.

The pieces of stone have to be carefully selected, and, if necessary, chipped and shaped to fit naturally in the pan, and so disposed with a backward tilt as to direct falling water inwards to the centre of the structure. The building up of the stonework is a fascinating task, and one which should on no account be hurried over. The art consists in getting the maximum of effect with the minimum of stone, and until the result is satisfactory the whole thing should, if necessary, be ruthlessly pulled up and remade. After it is finished, it should be watered freely and left to settle thoroughly before any planting is done. A day would not be too long an interval to allow.

For potting material nothing excels good yellow loam, and as one is not going to use it by the cartload, the best should be obtained. Half of this, and half of the coarsest, grittiest sand obtainable, will make an ideal compost; and to this should be added a good handful of chips of stone for each pan to help the drainage, which should, in any case, be thorough.

In selecting plants, the great thing is not to crowd them. Five or six kinds to an average pan will be enough as a rule, but really there can be no rule where all the enjoyment consists in pleasing one's self. Spring is naturally the best time for starting a pan rockery; next to that there is no time like a cool September.

The pans represented are ordinary seed-pans (unglazed), some 11 inches in diameter and 3 inches deep; though the smaller ones shown are "Orchid pots," of greater depth. Such a pan where at first ample room for growth was allowed, will last in full beauty for three or four years, or even longer, the plants generally blooming each year after the first. To obtain the healthiest growth there should be the fullest possible exposure to the sun and the weather—the open-air treatment to the fullest extent—and provided this is given, the pans may be set on a window-sill, the parapet of a wall, the top of a balustrade, or any similar place. Only on soft, muggy, winter days, or during a black fog should they be brought under shelter, and then, if possible, into a cold house or frame, and only in the height of summer drought do they need the attention of the watering-can.

To return for a moment to the illustrations, the last one taken by Mr. T. E. Waltham shows a pan in a nearly vertical position. It represents the extent to which the stone, if of a porous or "bread-crusty" texture, becomes covered in the course of two or three years. The pans are mainly filled with the lesser Sempervivums, and Saxifrages of the "encrusted" sorts, notably *S. waldensis*.



A MIXED PAN RECENTLY PLANTED.



Another pan contained also *S. ouneifolia*, *S. burseriana*, and a *Sedum*.

The pan called "A Three Year Old" is remarkable as having never once been brought indoors or into shelter since its planting, and probably never artificially watered. A feature of



TWO YEARS GROWTH: VARIETIES OF *SEMPERIVIVUM ARACHNOIDEUM*.

this one is the fine growth of the narrow strap-shaped leaves of *S. paradoxa*. H. RAPHOE.

## NOTES ON HARDY PLANTS.

### NEW YEAR HARDY FLOWERS IN SCOTLAND.

**M**ANY think that the temperature in Scotland in winter is so low as to kill many plants which are hardy in the Southern portion of Great Britain, and that it is thus hopeless to attempt their cultivation. The truth is that Scotland as a whole is not such a trying place for flowers as is believed, and Scottish gardeners may hope to grow, with every prospect of success, flowers which can be cultivated in the open in the majority of the English counties. It is true that there are some high inland districts where it is hopeless to try to grow any but the hardiest plants, but there are, on the other hand, many places near the coast-line where flowers which cannot be cultivated in the English Midlands will flourish. This is without taking into account some specially favoured spots, such as the famous gardens of Mr. Osgood H. Mackenzie at Inverewe, and some others where many choice and tender plants are successfully grown. Even the East Coast, with its keen and bitter east winds in spring, is not so trying as many English districts, and we in the North frequently wonder when we find a statement made by a Southern gardener that a certain plant is tender, whereas we may have cultivated it for years, and have found no evidence of tenderness. As a rule, the worst part of the Scottish winter comes after the turn of the year, and frequently we have mild weather on New Year's Day, with the result that we have then a few flowers in bloom in the open. The great enemy of the early winter is not frost, but rain; and, in consequence, if we wish to enjoy these flowers thoroughly, and to prolong their beauty, we may have to cover them with hand-lights—practically all the protection they require. It may, therefore, be worth while to see what we have

had, or may have, in bloom in Scotland at the opening of the year.

First, perhaps, we must place the Christmas Rose, one of the most beautiful and most appreciated of our hardy flowers, which is at its best just about the time of New Year's Day. With a handlight to shelter the flowers, the blossoms are not only prolonged in beauty, but are kept pure. No flower is more beautiful at this season.

In a peat border or a quiet nook in the rock garden we may also have the lovely little *Polygala Chamæbuxus*, whose cream and yellow flowers are so pleasing. But its purple and gold-flowered form, *P. Chamæbuxus purpurea*, is a much more reliable winter flower; is, in fact, rarely out of bloom throughout the year. For a bit of bright colour, too, we must possess the old winter-flowering *Jasmine*, *Jasminum*

*nudiflorum*. On a sunny wall it is earlier than on a shady one, where, by the way, it will bloom as freely, although later. Then even without possessing the late and rare *Snowdrops* which come in late autumn and forestall the common *Galanthus nivalis*, we may have the latter in many places on New Year's Day. There are many sheltered gardens and churchyards where frequently a posy of *Snowdrops* might be found at that time, although, as a rule, it is February before the gardens and woodlands are carpeted with their pure blossoms.

Then the *Primulaceæ* afford us some stray flowers of beauty and brightness. Even without any protection we may have *Primroses*, a few *Auriculas*, and some of the *Primula* species. The new *Primula megaseeifolia*, although it requires a handlight over it in winter to protect its flowers, is a boon to the outdoor garden at this season. With its bright purple flowers lifted well above the pretty leaves, it is a charming plant for a moist spot. The late Mr. George F. Wilson's blue *Primroses* flowered unexpectedly early, and never fail to give one some flowers early in the New Year. The *Primrose-Polyanthuses* are generally early bloomers, and give flowers in December and January, although not in great profusion. *Auriculas*, also, of the harder type, do not fail one, save in very hard weather indeed, although the number of blooms they afford is but small.

With some special attention the varieties of *Iris unguicularis* may also be had in bloom, although they must be planted in the sunniest and driest place at command, and among stones

and old mortar, and kept covered with a handlight or frame. It is hopeless to expect to have them in bloom without this covering in winter. Out in the bud, as "W. I." tells us in his valuable article on the white variety of this Algerian *Iris* in *THE GARDEN* of December 16, they open in water, and are delightful in the extreme. *Violas* will give us a few flowers for a while to come. This reminds one of the ease with which some of the *Anemones* can be persuaded to give flowers in autumn and winter, so as to be in bloom on New Year's Day, if they are covered with a frame from October onwards.

Old Wallflower plants, or those which have been very early sown, will also yield their fragrant flowers; but none will prove so satisfactory as old plants of the old double yellow one known as *Harper Crowe*, which one may have for months in winter, and which is now in bloom. *Crocuses* also, where the species are well represented, usher in the beginning of the year. *C. lævigatus*, snug under a small handlight, is worthy of our admiration; and even *C. cancellatus*, without any sheltering covering, gives a little patch of brightness.

The white variety of *Erica carnea*, which always forestalls the typical flesh-coloured one, is wreathed with its white waxy blooms. Rarely, too, need we be without the charming golden blooms of *Eranthis hyemalis* (the Winter Aconite), whose flowers are ever welcome. Occasionally we may have flowers of the single *Arabis*, but it is not so reliable for a few flowers as that inestimable boon, the double form of *Arabis alpina*. We have also a few flowers of that wonderful bloomer, *Geum Heldreichii*, whose orange-scarlet blossoms are doubly welcome because of the bit of warm colour they give at this time. Less bright, but not less attractive, are the flowers on the white *Potentilla alchemilloides*, a neat little



VERTICAL VIEW OF MIXED PAN, SHOWING POROUS NATURE OF STONE USED.

white-flowered alpine which flowers for many months, and rarely ceases save for a month or so in summer. With these flowers and with the greenery of shrubs and evergreen plants of diverse kinds and of various tones we need never find our Scottish gardens absolutely devoid of attraction. *Sunnymead, Dumfries, N.B.* S. ARNOTT.

## GARDENING FOR BEGINNERS.

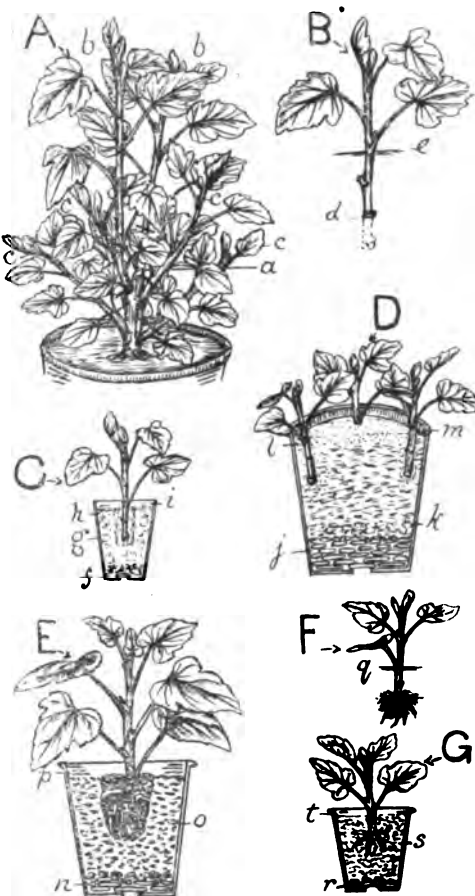
## SIMPLE HINTS.

**PROPAGATING ABUTILON.** — The varieties of Abutilon are valuable for greenhouse decoration, either for culture in pots or as climbers. They may be easily increased by means of cuttings, as the following references to the accompanying illustrations will show. Figure A shows a cut-back plant supplying cuttings: *a*, point of cutting back to induce young shoots; *b*, vigorous shoots suitable for striking singly in small pots; *c*, ordinary young growths of about equal vigour, for inserting round the sides of 6-inch pot (cross lines indicate the point of severance). Figure B shows a strong cutting prepared for inserting in 2½-inch pot: *d*, point of cutting across, just below a joint (removing leaves from two joints as shown), so as to secure roots near the surface and not have a long stem deeply buried, as would be the case if the cutting were made as long as the dotted line; *e*, depth to insert in the soil. Figure C shows a strong cutting properly inserted in a 2½-inch or 3-inch pot, according to size: *f*, drainage crock over aperture, and a little half-rotted turf or leaves above; *g*, soil (equal parts of peat, leaf-mould, loam, and sand); *h*, surfacing of silver sand, hole made by finger or dibber, make sure that the cutting rests on and is surrounded by sand; *i*, space for holding water when watering. Placed in a temperature of from 65° to 70°, cuttings quickly root and form good plants. Figure D shows cuttings properly prepared and inserted at the sides of 6-inch pot: *j*, drainage about one-third depth of pot; *k*, rougher parts of compost; *l*, surfacing of sand; *m*, space for holding water when watering. Figure E shows a cutting rooted in 2½-inch or 3-inch pot, repotted into 5-inch pot: *n*, drainage (crock over aperture, other pieces to make level, then a layer of smaller size, and a thin layer of moss or rougher parts of compost); *o*, soil (equal parts of turfy loam, peat, and leaf-mould, with one-sixth of gritty sand); *p*, space for holding water when watering. Figure F shows a rooted cutting in a 6-inch pot, carefully removed from cutting-pot with all roots and some soil: *q*, depth of inserting in soil. Figure G shows a rooted cutting potted into a 3-inch pot: *r*, drainage (crock over aperture, and a little rougher parts of compost); *s*, soil; *t*, space for holding water when watering.

**A Beautiful Salvia.**—*Salvia splendens* compacta Zurich is the name of a new variety of *Salvia* that is well spoken of. With the introduction of *Salvia* Fireball an excellent variety was placed in the hands of gardeners; Zurich appears to be even more valuable. "I saw *Salvias* Rudolph Pfäzter, Fireball, and Zurich planted side by side under similar conditions," says a writer in a German gardening paper, "and Zurich flowered a fortnight earlier than Fireball, and produced an even finer display of bloom." Those who know the variety Fireball will recognise that this statement is saying a great deal in favour of the new *Salvia*.

**Chrysanthemum Growing for Beginners.** — There is no better time to start than when bright weather begins to give new life. Pots of 2½ inches diameter are suitable, in which two cuttings may be inserted. The soil should be made of two parts of fresh turfy loam, one part of leaf-soil, and almost three parts of coarse silver sand. For the benefit of beginners I will try to explain every detail as much as possible. First, the loam should be sifted through a coarse sieve, say, one with a mesh of three-eighths of an inch. Pull to pieces the fibrous material which remains after the first shaking, and run through as much

as will go. The leaf-mould, too, may be sifted, also the sand. Having put the right quantity together, thoroughly mix it. Now, allowing that the pots are clean, put one piece of crock, i.e., a bit of broken pot, to cover the hole in the bottom; next, a little of the fibre which would not run through the sieve. If the pot is filled with the compost right up to the top, and this pressed down firm enough to leave it half an inch below the rim when finished, it will be in a suitable condition. Place on the top a layer of pure white sand, which will leave the pot with a quarter of an inch clear for watering. The pots are ready now for the cuttings. If they have been purchased from a nurseryman, they will probably be none too long. Simply trim off the



HOW TO RAISE ABUTILON, A FAVOURITE GREENHOUSE PLANT, FROM CUTTINGS.

leaves, leaving only two large ones and the smaller ones forming the heart of the cutting. Cut the end off just below a joint as clean as possible, and it is ready for insertion. If, however, the cuttings are growing on old stools, there will most likely be a more liberal selection. Do not take the biggest, but select medium-sized ones which look like growing away without buds forming in the head. They are best cut off just above the surface of the soil, and may be trimmed as mentioned before; 3 inches is a fair length. When inserting them use a lead pencil to make a hole barely half the depth of the pot, and put the cuttings one on each side of the pot, pressing the soil somewhat firmly round the base.

**The Best Place** to put the pots of cuttings is undoubtedly in a greenhouse which is heated sufficiently to keep the temperature somewhere between 45° and 50° at night, and if such a place is not at hand some kind of air-tight box arrangement should be made, which will answer the same purpose as if the cuttings were put in a small frame and the frame stood in the greenhouse.

**Boxes of Thin Board** 9 inches deep and made to take a square of glass, say, 14 inches by 20 inches or 18 inches by 20 inches, make capital propagating boxes. The cuttings should be far enough apart to allow of all the leaves standing clear of each other. They should be well watered either with a very fine-rosed water-pot or spray syringe. The object of making the box or small frame air-tight is that the cuttings shall not droop, or at least not very much. If, however, no such place is made for them, but the cutting be left in the open house, it will root in time, but after a very long period of flagging. Owners of the humble frame may also strike cuttings, but do not begin too early, and proceed as already stated.

**Bought Cuttings**, especially of new sorts, will need more care and a rather higher temperature may be needed to ensure few losses. We now have a good start; the cuttings have been taken, trimmed, cut at a joint, and potted two in a pot, then placed in an air-tight box, with glass on top, and lastly well watered. For several days after insertion, if the soil was moist at potting time they will need no water, but the glass may be turned every day, and a little air space left for a short time during the day. When, however, the soil, or rather sand, begins to show white on top, water is needed, and should be given as often as the sand gives warning of drying. No doubt for a week or so the cuttings will remain as briks as possible, but after that they may flag somewhat; this is of no consequence, and although dryness at the base may be the cause, it is by no means necessarily so, and care should be exercised to see that the proper state of moistness is maintained. Of the two it is best to let a cutting be a little on the dry side than the wet. Throughout January, then, watering is the point to study, and should aleaf here and there decay, remove it at once with a very sharp knife—a clumsy operation may loosen the cutting and retard its rooting. Cuttings in the open house take considerably more water, and those in a frame far less; the latter, too, should be well covered up with sacks or matting at night to protect them from frost, and everything done which is likely to keep the frame dry, and the cuttings from mildew and rot.

**Loam** is obtained as follows. Everyone knows what green turf is, such as is laid when lawns or garden edgings are made. Well, instead of being cut thin and rolled up in neat rolls, similar turf is cut and laid out flat, one piece on another, till a heap is made, which, after a few months, becomes not turf, but has rotted down into turfy loam. All the green grass has decayed, but the more wiry roots remain and form what is known as fibre. For the early pottings this loam should be nearly a year old, but for the larger pots fresher and more fibrous stuff is better.

**Leaf-mould**, almost everyone knows, is simply rotten leaves, and for small pots should be that over twelve months old, but, as with the turf, for larger pots fresher, coarser leaves. Sand is a most difficult thing to get in suitable quality; for the early pottings a very coarse silver sand



is best, and for the last a gritty, coarser sort. Another very necessary thing is old mortar. Chrysanthemums delight in this, and if possible, when an old building is pulled down, get some good hard lime-mortar, not simply plaster and such material. Manure, too, must be had in some form; fresh stable manure should be well shaken out and only the short retained, which can then be placed in a heap and left to dry a little. These form the principal items in potting, and preparations should be made to ensure having them ready when needed.

**Peas.**—A sowing of Peas may now be made out of doors, being guided at all times by the weather and the state of the ground. It is not advisable to tread the ground when wet; but as early Peas are generally sown in narrow warm borders, planks may be laid on the ground for walking upon in bad weather. If the land is wet open the drills in good time in the morning, so that advantage may be taken of any wind or sun for drying the soil; a layer of dry soil from the potting-shed spread in the drills is to be recommended, and the seeds should have a covering of soil about 2 inches deep. Where mice are troublesome in the garden coat the Peas lightly with red lead or soak them in paraffin before sowing. For early work we prefer Veitch's Selected. We have the drills on the border about 12 feet apart, filling in later with early Potatoes and early Cauliflowers.

**Sowing Seeds.**—It will soon be time for sowing seeds of many half-hardy and hardy annuals, and a few notes upon the subject will therefore be opportune. It is often given as a general rule that seeds should be sown twice their own depth in the soil. While this cannot always be followed as a hard-and-fast rule, it serves to show that while very small seeds should be but lightly covered, or even not covered at all, larger ones should be placed more deeply in the soil. Seeds should always be sown in what is termed "fine" soil—that is to say, soil which has been passed through a small-meshed sieve—in the case of seed-sowing in pots or boxes, and soil broken up into very small or fine particles in the case of seed-sowing in the border. Instead of covering small seeds with soil, silver sand is often used. This is, of course, very fine, and allows the tiny seedlings to come through more easily than soil does. The watering of soil in seed-pans, pots, or boxes needs to be carefully performed. It is best done by immersing the receptacle in water, so that the latter may soak through the soil from below. This is a far more satisfactory method than applying water to the surface, even with a fine rose can, for the seeds are certain to be disturbed more or less. The seed pans or boxes should be covered with a pane of glass, so as to keep the surface soil moist; this is especially necessary in the case of seeds which are not sown deeply. Every morning the glass should be removed and rubbed quite dry with a cloth. This is important, for if not rubbed off the moisture will drip on the soil, and may cause some of the seeds to decay.

**Seeds to Sow Now.**—There are many seeds that ought to be sown now by those who have a heated greenhouse, or even a frame from which frost can be excluded. Important among them is the tuberous Begonia, such a valuable plant for filling beds in the garden during the summer months, as it provides an uninterrupted and brilliant display of bloom from July to October—until, in fact, the frost puts an end to its beauty. The seed of the tuberous Begonia is very small, and needs to be carefully sown. Get some clean pans or pots, put in plenty of crocks (broken bits of flower-pot) for drainage, cover these with rough soil to prevent fine soil falling into and choking up the drainage, then fill the pot or pan with finely-sifted sandy soil; press down the surface with a flat board so as to make it quite level, then sow the seeds thinly and cover with a slight sifting of sandy soil or a

sprinkling of sand. When the work is finished the surface of the soil should not be more than  $\frac{1}{2}$  inch below the rim of the pot or pan, otherwise lifting out the seedlings when they are ready for repotting will be found a difficult matter. The best temperature to ensure good germination is one of 65° Fahr.; it should be kept as regular as possible. The seeds sown now will produce flowering plants by July. Marguerite Carnations should now be sown; they may be had in flower in about six months from the time of sowing if a heated greenhouse is at command. Petunia, Verbena, Gloxinia, Cyclamen, and Hollyhock should also be sown. Many treat the latter as an annual. From seed sown now, and the seedlings grown on ready for planting out in early summer, plants to flower this year will result. A temperature of 60° to 65° Fahr. will suit all the seeds above mentioned.

**Woodlice** are often a great nuisance in pits, frames, and greenhouses, and if not killed will soon become a pest. The simplest remedy is to pour boiling water over them. They rest during the day in crevices and corners between the wood-work and brickwork and behind the hot-water pipes, and come out to feed at night. Make sure that the water is boiling, and pour it into their haunts during the day. Another simple method is to put a slice of Potato in a small pot; cover with hay, and place on the bed of the house or pit. In the morning examine the traps, of which a number should be set, and turn them upside down over a pail of boiling water.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**P**ERGOLAS constructed of wood should be carefully examined now. Any posts or cross pieces that are decayed, if there is any doubt about their lasting for a year, should be removed and replaced with new. It is not only easier to do this when the climbers are at rest, but if done now it will prevent that vexation of spirit that follows the continual falling down of some part of the structure when the climbers should be at their best. Oak and Spanish Chestnut make the best posts, or good Larch poles of about 9 inches in diameter, that have grown slowly, are also suitable, and will last from twelve to fifteen years.

**CLIMBERS MAY NOW BE PRUNED.**—The vigorous growing Rambler Roses, such as Crimson Rambler, Carmine Pillar, The Garland, The Dawson, Psyche, Brunonia, and Una are some of the best of quite a host of vigorous growers that very quickly cover the top of the pergola, making strong shoots annually. All the pruning they require is the cutting out of all old flowering wood, and shortening of weak growths. The strong wood should be secured by as few ties as possible, allowing them to grow in natural ways. Strong sprays towering up, others hanging loosely, give the charm to the pergola, which would otherwise have the appearance of a tunnel. Wistaria sinensis and variety alba, purple-leaved Vines, Vitis Coignetiae, and Clematis montana are amongst the best climbers for the tops of high pergolas. The pillars may be planted with Roses of weaker growth, such as Dorothy Perkins, Lady Gay, and the best forms of hybrid Clematis, Honeysuckles, and the lovely little alpine Clematis (Atragene alpina) and its white variety, not forgetting to plant a few of the old favourite Jasminum nudiflorum. Its cheery, bright yellow flowers are such a delight in mild winters. It goes on flowering for several weeks, and in the severest winter the buds will open in water in the house.

**RANUNCULI**, while requiring a cool, deep, moist soil, are liable to suffer from damp in winter.

Although in some gardens the roots may be planted with safety in November or December, in most gardens the planting is best deferred till now. The situation should be open and the soil well manured. Prepare a fine surface to the beds, draw drills 6 inches apart, 2 inches deep, and plant the tubers 4 inches apart in the drills. It is advisable to cover them with sifted soil, and afterwards to rake the beds smooth.

**THE TURBAN RANUNCULUS** is of freer growth and harder constitution than the Spotted Ranunculus, and is valuable for the masses of colour it produces. This is also a good time to raise seedlings of Ranunculi in boxes, which should be placed in a cool greenhouse or frame and be carefully hardened as spring advances. The seedlings should be left in the boxes till they have ceased growing. They may then be dried and stored for planting the next spring.

**ALPINES** and half-hardy or rare hardy plants protected in frames should be frequently looked over and all appearance of damp removed. Admit plenty of fresh air, removing the lights altogether in the middle of all fine days.

G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**LAELIA ANCEPS AND VARIETIES.**—The beautiful Laelia anceps and its many varieties have now finished flowering for this season, and any that are emitting new roots from the last-made growth should be attended to. Some growers experience a difficulty in flowering them, which, I believe, is due to two reasons, the chief one being that the plants have not been grown close enough to the roof glass and exposed to full sunlight during the growing season. Only the plants that are well rooted and in a healthy condition are able to stand this treatment; others with very little living root should be watched carefully now, as new roots in many cases are appearing, and these are the plants that require repotting. Only an occasional plant will flower the season after being repotted; therefore none should be disturbed unless it is really necessary to do so, and those that are should be potted in a good lasting material. A good compost to use is two parts Polypodium fibre to one part sphagnum moss cut up together and freely intermixed with small crock and silver sand. Cut away the useless back bulbs, leaving two behind the leading growth; if any are good varieties the back bulbs should be placed on the stage underneath the growing plants, where they will soon form new growths, and thus the stock may be increased. Pot very firmly with the compost advised, because Polypodium fibre is of a very spongy nature and will hold too much moisture if the potting is at all loose. Teak baskets or pans do equally well for L. anceps, but use them large enough to allow the plants to grow without being disturbed for at least two years. During the operation work some living heads of sphagnum on the surface, which when finished should be just below the rim level of the pot. Water should be given sparingly until the new roots have taken to the compost, but when they get well established water should be given freely whenever the plants are getting rather dry. During the warm weather light syringing in the morning and afternoon is beneficial to them. Laelia anceps alba, L. a. Stella, L. a. sanderiana, L. a. Hillii, L. a. Dawsoni, L. a. schroderiana, L. a. Williamsi, and L. a. vestalis are all white forms, very useful for decorative purposes during the winter. Another very useful plant which flowers with us every winter is

**ANGELICA EUBURNUM**, which bears a long spike of huge blossoms; the lip, which is pure white, is most attractive, and the petals and sepals are tinted with pale green. As soon as new roots appear from the stem repotting or resurfacing should be attended to if necessary. It is a very vigorous grower, and consequently requires a large pot. If the plant is at all "leggy" a



portion of the old stem should be cut away at the bottom. Pot firmly with large lumps of peat and sphagnum moss, and work in some large pieces of charcoal or crook and sand during the process. *Angiosperm sesquipedale* is also a favourite which flowers during the winter; its large ivory-white flowers and curious spur from 12 inches to 15 inches in length, are always admired. The cultural details are the same as for *A. eburneum*. They are both natives of Madagascar, and should be grown in a warm house.

*STENOGLOTTIS LONGIFOLIA* and its variety *alba*. This pretty little terrestrial orchid is a native of Natal; it flowers in the autumn, has erect spikes 12 inches to 15 inches long, and bears numerous small flowers which remind one of our British Orchid. It is very easy to grow in an ordinary greenhouse if given a shady position. As it has commenced to grow it should be potted in a mixture of fibrous loam and leaf-soil freely intermixed with finely-broken crocks and silver sand. It requires plenty of water during the growing and flowering season, but after flowering it loses its leaves, and should be kept dry until growth recommences.

W. H. PAGE.

*Chardwar, Bourton-on-the-Water.*

### FRUIT GARDEN.

**APPLES AND PEARS.**—Any pruning or nailing of these on walls still to be done should be proceeded with on every favourable occasion. If all the summer growths on spurs were stopped last autumn, the chief work to be done at this time is to shorten back any pieces of the wood that may appear too long, also shortening back the leading growths according to the space on the wall still to be covered. The spurs on old trees, when they begin to extend too far out from the wall, should be cut back a few at a time; this will, no doubt, lead to the sacrifice of a number of blossoms, but the improved quality of the fruit resulting will amply compensate for the reduction in numbers. Old trees that show signs of approaching weakness will be greatly benefited by the surface soil being removed down to the roots and a fresh mixture of rich loam and lime rubble added, treading it very firm and finishing with a good mulch of farmyard manure. When the roots enter this fresh compost, the cleaner and healthier growth and the finer fruit will soon make this fact apparent. A very satisfactory method of improving aged trees is to lift all the roots on one side of the tree and relay them in a fresh compost, raising any of the roots that may be getting into deep and unfertile soil. The operation should be repeated on the other side of the tree after an interval of two seasons. We have found Pears that had produced a very indifferent crop of fruit for several years much benefited by the above treatment.

**THE WINTER PRUNING OF PLUMS** will be about the same as that recommended for Apples and Pears. All the short natural spurs must be strictly preserved, but long ones, and any short shoots left at the time of the summer pruning, should be shortened to the basal wood-bud, which can be easily distinguished from the plump flower-buds.

**VINES.**—It is now time that all preparations for starting Muscats, Lady Downes, and late-keeping varieties should be completed, the first week of February being our usual date for starting these, so as to give them a long steady season of growth and bring the fruit to maturity by the middle of September. Avoid keeping the temperature too high; a night temperature of 50° is quite enough to begin with, gradually raising it as the days lengthen. The Hamburg vineeries from which an autumn crop is required may be kept quite cool and airy for a month or six weeks yet. The earlier started Hamburgs will now require regular attention in disbudding, stopping, &c. Disbudding should be done in an early stage of growth, leaving only one strong growth to each spur. Stop the shoot at the third leaf beyond the bunch, and after the bunch

is set the shoot may be again extended a few more leaves.

**EARLY POT VINES** in flower should have a night temperature of 65° to 70°, rising 10° to 15° through the day, but if the outside air be very cold a lower temperature will be better than employing excessive fire heat. Distribute the pollen daily by passing a fine feather, brush, or rabbit's tail very lightly over the bunches.

THOMAS WILSON.

*Glamis Castle Gardens, N.B.*

### KITCHEN GARDEN.

**MAKING HOT-BEDS.**—Where the material for hot-beds is ready proceed with making the beds. If deep brick pits are available for this purpose, throw in the material, shaking it out well, and make firm evenly by well treading all over the bed as the filling in proceeds. The depth of the bed should not be less than 4 feet, 5 feet or even 6 feet not being too much, as the decayed material can always be turned to good account when emptying the pits in the autumn. Cover to a depth of 15 inches with good soil; the same soil can be used many times without being renewed, by enriching with well-decayed manure and leaf-mould.

**FOR PORTABLE FRAMES,** make the beds 3 feet wider on all sides than the frame itself; extra care must be taken to make these beds quite firm and even, otherwise the frames will settle in all directions. The material can be built up round the woodwork of the frame, and will conserve a higher temperature inside; these beds, being generally made on level ground, should be at least 4 feet high. Before planting or sowing thrust in a stick or hot-bed thermometer to make sure that the bottom-heat is not too great, 75° being a safe temperature.

**TURNIPS, CARROTS, AND RADISHES.**—A sowing of Turnips and Carrots may now be made; Extra Early Milan is, I believe, the very best Turnip for this kind of work. Of Carrots there is a greater choice of variety. Sow thinly in shallow drills 6 inches apart, covering the seeds lightly. When sown in drills the crops are more easily cleaned than when sown broadcast. A sowing of Radishes should also be made, Early Gem being a good variety for pit work. Air must be freely given to both Turnips and Radishes when germination has taken place, but Carrots require a warmer and closer temperature.

**POTATOES.**—Where Potatoes are forced in pits a start should be made at once, using well-sprouted tubers. Plant in the ordinary way, allowing plenty of room to prevent the growth being overcrowded. Veitch's Ashleaf, Sutton's May Queen, and Sharpe's Victor are good varieties for pits.

**PARSNIPS AND SEAKALE.**—Parsnips or Seakale left in the ground should be lifted without delay. Store the Parsnips in a pit or shed. The Seakale should have the roots broken off with the hand and the crowns laid in a convenient place until required for successional batches for forcing. Select the straightest and stoutest of the roots—though—prepare them for the coming season. Cut them into lengths of 6 inches or 7 inches with a sharp knife, making a straight cross cut at the end of the thong that was nearest the main root and an oblique cut at the other end. Tie them in bundles of fifty, and place them upright in soil under a south wall to "callus," covering the bundles with 2 inches or 3 inches of finely-sifted soil.

**BROCCOLI.**—Broccoli now fit for use, if in quantity, are better lifted with a good ball of soil and placed either in a cold pit or under a south wall, where they can be easily protected. Those left in the bed must be protected from frost and rain, or the heads will be spoiled in a young state. I find that where rats are numerous a Broccoli bed affords good cover. Search should be made occasionally to see that these have no chance to establish them-

selves, for if allowed to remain undisturbed they will soon make havoc with the plants.

J. JAGGER.

*Bryanston Gardens, Blandford*

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

### ROSE GARDEN.

**PRUNING CLIMBING ROSES (G. G. S.).**—The best time to do the chief pruning of climbing Roses under glass is soon after they have blossomed in the spring, then the following summer's growth will blossom the next spring. It generally happens, however, that there are several soft, sappy growths, and also a number of twiggy laterals, to deal with in the spring. Cut the former hard back, and shorten the laterals to two to four eyes, according to their strength, the weakest being pruned the hardest. We should strongly advise you to give a little gentle heat at once, and not wait for frost before applying heat. If you desire Roses fairly early, and also if you want good ripened wood for another season, the Roses should be in bloom by April or early in May. After pruning in spring apply plenty of heat and moisture in the atmosphere, and the roots must not be forgotten. Roman Hyacinths are not often used after they have once flowered, but if you have an odd corner of the garden you do not care much about, the bulbs, if planted there, would give you a little useful bloom another season. Scillas may be forced with Roman Hyacinths. It might be advisable to plant the Scillas about a week later than the Hyacinths.

**PROTECTING AND MANURING ROSES (Puzzled).** The advantages of earthing up Tea, Hybrid Tea, and other more or less tender Roses are so widely recognized at the present day that no question of the small expense should enter into consideration. We quite understand your difficulty, but we think you will not find it so great as you imagine. It would never do to draw up the soil around plants that are planted closely together, but if you had some old pot soil and burnt garden refuse prepared, and gave each plant about a shovelful of this, a cartload would go a long way. In a very severe winter plants unprotected would probably be killed outright, while the protected plants would spring up again from beneath the protecting soil. As to removing the latter, the small quantity used could be spread upon the beds to the advantage of the plants. This matter of transplanting Roses is one of much importance, and we should strongly recommend you to adopt it, only the work should be carried out in October or early in November. When transplanting, give each plant about its roots a shovelful or two of prepared compost, consisting of loam, two parts; well-rotted Cucumber-bed manure, one part; and a little bone-meal—say, a 6-inch potful to a barrow-load of soil. Burnt garden refuse would be a valuable addition. As to manuring established Roses, there is, we admit,

a great difference of opinion. We have found that a dressing of well-rotted farmyard manure given to the beds and borders in November, and then lightly forked in, has had excellent results. Before applying the manure we give the soil a dressing of basic slag, at the rate of 4oz. to 6oz. per square yard. If you have not already manured your plants it will not be too late now. We do not advise other artificial manures, although many rosarians use, in addition to the above, a dressing of superphosphate in the spring, at the rate of about 3oz. per square yard. Tonks' manure, a recipe for which we recently gave, is an excellent aid to successful Rose culture. These winter and early spring manurings are supplemented with liquid manure applied in May and June.

**ROSES AND SWEET PEAS (J. W.).**—Mme. Alfred Carrière, Aimée Vibert, Mme. Jules Gravereaux, and Longworth Rambler are all summer and autumn flowering Roses, in contradistinction to such as Crimson Rambler, which flowers in July only. Any of those would suit your purpose. The ground is now very wet and cold, so you would do better to defer planting until March. If you obtain a good pot-grown plant it will bloom this year, as it need not be cut back. If you purchase a plant taken up from the open ground its shoots must be cut back at planting time, and so you would get no flower this year. Give the Sweet Peas in pots all the air you can, unless it is very cold or windy weather. Place them so that they have all the light possible. Put them into larger pots as soon as they are well rooted, giving them rich soil.

**CLIMBING ROSES (Haughley).**—The Roses you name will cover the arches, but you might have chosen better ones. In fact, your whole selection is not very good. Wichuriana Alberic Barbier is an excellent Rose for arches. François Foucard and Paul Transon are other good varieties of wichuriana which are absent from your list. Bennett's Seedling, Felicité Perpetue, Mme. d'Arbly, Aimée Vibert, and Mme. Alfred Carrière are all good Roses suitable for your purpose. Wallflower is a lovely Rose for arches. We should revise your list to read as follows: Dorothy Perkins, Weltham Rambler, Carmine Pillar, Thalia, Alberic Barbier, François Foucard, Paul Transon, Bennett's Seedling, Mme. d'Arbly, Jersey Beauty, Aimée Vibert, Ruby Queen, René André, Mme. Alfred Carrière, Wallflower, and Reine Olga de Wurtemberg.

**Chas. Houlgate.**—Yes, you will find it far better to fill each of the beds with one variety of Rose rather than with two or three. By doing so you will get a more striking effect than by mixing the colours. Three excellent Roses for garden beds are Caroline Testout, Grisea un Tepitz, and Ulrich Brunner, placing Caroline Testout in the centre bed. We should prefer to have standards in the centre rather than half standards, for all the three varieties mentioned are strong growers, and bloom in summer and in autumn.

## TREES AND SHRUBS.

**MIXED PLANTING OF FOREST TREES (J. G. G.)** The practice of planting indiscriminately all kinds of forest trees, and distributing them throughout the plantations with the regularity of the patterns upon a wall-paper, is at once opposed to science and to correct taste. Few foresters can boast of soils adapted to the growth of any great number of species in the same enclosure, and the recurrence of the same forms and tints in spring, summer, and autumn at regular intervals throughout the woodlands entirely destroys the spirit of planting. It may often be advisable to mix up the deep and shallow-rooting trees, so that the soil may be well occupied from its surface downwards. Besides, some of those trees whose roots penetrate the deepest bring up to the surface, and scatter over the land by their fall of leaves, substances beneficial to other trees whose roots do not descend deeply enough to reach them. These substances have also a beneficial effect upon the herbage which springs up after the land is either partially or entirely cleared of timber.

**THE WHITE POPLAR (County).**—The beauty of Poplars in autumn is far more noteworthy when numbers of trees are taken together than in any single specimen. Sometimes the Mountain Ash fades to a splendid red colour and is very beautiful in itself, but it is very uncertain, and one specimen will do so while another will not. The White Poplar, however, is the most beautiful common tree in this respect when half of its leaves assume a fine yellow colour, while the rest show all manner of weaker tones of yellow till you come to the youngest, which have their own inimitable pearly sheen in the most bewitching contrast with the yellow in the middle of the tree.

**PLANTING EVERGREENS (H. B.).**—Not only can this be safely done in the spring, but if it cannot be carried out in early autumn it is best deferred until late spring. You should not do the planting in March, but should wait until April. March is about the worst month for this work, on account of the cold drying winds which often prevail during that month. If, however, you are not going to leave England until mid-October there will be plenty of time to do the work before you go, as September and early October are the most suitable times. Evergreen shrubs should be transplanted while the roots are active. If you cannot complete the work before mid-October defer its completion until April. If you carry out the transplanting in these months, preserving as many roots as possible, and keeping the shrubs well watered after the planting, there will be little danger of failure.

**Landscape Gardener.**—The following trees should suit your purpose: Evergreen—Common Holly, Evergreen Oak, Pinus austriaca, Pinus contorta, Pinus Laricio, Pinus Pinaster, Pinus montana, and Pinus sylvestris. Trees—Betula alba (Birch), Crataegus Oxyacantha (Hawthorn), Fraxinus excelsior (Ash), Laburnum, Prunus Padus (Bird Cherry), Pyrus Aria (White Beam Tree), Pyrus Aucuparia (Mountain Ash), Salix alba (White Willow), Salix Caprea (Goat Willow or "Palm"), and Wych Elm. A few shrubs of exceptional merit for such a position are Atriplex Halimus, Colutea arborescens, Caragana arborescens, Halimolodendron argenteum, Brooma, Hippophae rhamnoides, Lycium europaeum, double-flowered and cut-leaved Bramble, Tamarisk, Ulex europaeus (Furze or Gorse), and the double-flowered kind.

## THE GREENHOUSE.

**GESNERAS (A. H. R.).**—You must be careful not to carry out the drying-off process too severely, that is, if they belong to that section with creeping caterpillar-like rhizomes. Those kinds, such as cardinalis and macrantha, which form solid tubers after the manner of a Gloxinia, are not so quickly affected by drought. When they are dormant, keep them on the stage of a house with a temperature of 45° to 55°. Underneath the stage some of them may get too wet from drip, or too dry if near the pipes. Unless great care is taken some of the best forms may be lost. The soil must be dry, without reaching the stage of extreme drought. From the middle to the end of February is a good time to start them again. Turn out the soil from the pots and pick out every rhizome or tuber. Then prepare a compost of equal parts of loam and leaf-mould, with some sand, well breaking it up by the hand, but do not sift it in any way. A pot 4 inches in diameter is a suitable size for three rhizomes, which should be arranged in such a way that their growing points are toward the edge of the pot. Place the rhizomes so that there is half an inch of soil over their tops. The rhizomes may be laid on a level surface of soil before being covered. The pots should be placed in a good light position in a temperature of 50° to 60°, and a little water given, which must of course be increased as the plants develop. Throughout the summer hardly any artificial heat will be necessary; shade from hot sun. As you require yours for late blooming they should be kept without fire heat as long as possible, but as the nights get cold, from the middle to the end of August, a little will be necessary. They will flower well in a temperature of 55° to 60°. If the plants are potted in 4-inch pots as above advised, they should some time

during May be ready to shift into pots 5 inches or 6 inches in diameter.

**GROWING BRUGMANSIAS (W. G.).**—Both Brugmansia (Datura) arborea and B. sanguinea are large-growing plants, in fact, almost trees in habit. They each form a stout erect stem that divides into a head of sturdy branches, and when from 9 feet to 12 feet high they flower profusely. The Brugmansias may be planted out in a prepared bed in the greenhouse, or if preferred grown in large pots or tubs. In this latter case the plants can, if required, be stood out of doors during the summer. They need exactly the same treatment as a Fuchsia; that is to say, if repotting is needed it should be done in the spring, liberal treatment given during the summer months, and in winter a period of rest. At that season all the leaves drop, except one or two of the young ones at the points of the shoots, and when in this condition they need very little water. Bougainvillea glabra sanderiana can be grown and flowered well in a pot, the principal consideration being liberal treatment in the latter part of the spring and throughout the summer; then, when the flowering period is over—which, particularly if the plants are grown cool, will not be till the autumn—the plants should be kept drier at the root and wintered in a temperature of 50° to 55°. Early in the spring the vigorous shoots may be spurred in, and any exhausted wood removed; after this the plants will break freely into new growth. If repotting is needed it should be done as soon as the young shoots begin to grow. It will not flower till large and strong, and needs plenty of heat and moisture during the growing season. Large bulbs of this are from 1 foot to 1 foot 6 inches high.

**THE FUCHSIA (E. J. Atkinson).**—This is a deciduous plant, and does not require much attention in winter. After the leaves drop the plants may be removed anywhere provided they are secure against frosts. Verbenas and Petunias pass the winter on a shelf near the glass in a vinery or Peach house. The first named are very liable to be attacked by green fly and mildew, but they are easily destroyed, or if early precautions are taken they would not be attacked.

**Incense.**—We give you the names of several free-flowering stove climbers which bloom at the same time, so you will be able to choose those of the colours you prefer. Allamanda grandiflora, yellow, summer; Bougainvillea glabra, rose pink, summer; Gloriosa superba, orange and red, July; Solanum Wendlandii, lilac blue, summer; Passiflora racemosa, red, June; Bigonia magnifica, crimson, summer; Stephanotis floribunda, white, early summer; Clerodendron Thomsonae, crimson and white, summer. You would probably find the Clerodendron and the Bougainvillea as satisfactory as any for the position you name.

**Tisbury.**—The leaves of Panacratum are rather liable to be attacked by thrips, particularly if the atmosphere is dry. Syringing will tend to keep them down to a certain extent, but in carrying this out care should be taken that the undersides of the leaves are well wetted, for on this point we note that you say the syringe is piled over them. If directly the least signs of thrips are visible you were to vaporise the structure with the XL All Vaporiser these pests would give no trouble for some time, when the dose might be repeated. If you have only a very few plants, instead of vaporising, the leaves may be sponged particularly on the undersides, with soft soap and water.

**S. P.**—The Geranium leaves present the appearance of having been badly attacked by aphides or green fly during their earlier stages. The discoloured spots are caused by the punctures of these insects, made when the leaves were very young, and they became enlarged as the leaves increased in size. The way to check this trouble is by occasional vaporising with the XL All Vaporiser to keep the plants free of insect pests. A good light position and a free circulation of air help to keep Geraniums clean. If your plants are free from insects, they will with the brighter weather soon grow out of these disfigurements, when all that is needed is to keep a sharp look out for the first signs of these pests, and at once take measures to destroy them.

**A. F. C.**—The name of the enclosed flower is Ornithogalum lacteum, a very old plant in gardens, having been introduced from South Africa as long ago as 1798; but it is now very seldom seen. It will not succeed out of doors, but needs the protection of a greenhouse. After flowering, the plants should have a good light position assigned them, and be watered regularly as before, till the leaves show signs of going to rest, when the water supply must be diminished, and finally discontinued altogether. Then, having been totally dormant and quite dry for six weeks or two months, the plants should be turned out of their pots and the bulbs shaken clear of soil. Then repot them as before. Give but little water till they start into growth, when the water supply must be increased. If the beauty and lasting properties of this flower were better known, it would certainly be more often met with in gardens.

## ORCHIDS.

**ORNITHIDIUM COCCINEUM** (*SOPRONITIS ORNITHIDIUM*) (*W. G.*).—This does best in a raft or on a piece of Tree Fern stem, and in the warmest part of the structure. *Ocoddium cavendishianum* and *O. luridum* do not form pseudo-bulbs, as in most epiphytal Orchids, therefore they must not be kept too dry at any time. Taken altogether we are somewhat surprised at your lack of success in flowering the Orchids named. All the plants are, you say, healthy, but perhaps not sufficiently ripened; that is to say, they may have been too heavily shaded to flower, for while direct sunshine during the hottest part of the day is hurtful, yet a certain amount is necessary to the production of blossoms. The plants may be too small to bloom. If you could manage it a very good plan would be to show your collection, and the conditions under which they are grown, to some specialist, who being on the spot could readily indicate your weak points.

**CYPRIPIEDUM INSIGNE** FOR WINTER DECORATION (*J. G. G.*).—For the above purpose this is one of the best winter flowers we have. The choicer kinds that bloom at this season will not stand fog, and the leaves soon assume an unhealthy cast, but *C. insigne*, provided it is in robust health, resists fog better than many plants requiring more care. For cutting, the flowers are useful on account of their long-lasting properties, and though they may not be termed graceful, yet, when set up with some light foliage, they present a good appearance. We find the cooler the plants can be grown the better; indeed, when practicable, we like to grow them in cold frames facing north during the summer months, leaving the sashes off at night to allow the plants to get the night dews. When this is done, the leaves are sturdier, shorter, and have more substance, and the plants throw up a wealth of bloom for autumn decoration. We do not care for very large pots; from 7 inches to 10 inches are the most serviceable, being more readily moved, also more useful for house decoration.

*W. M. D.*—The flower sent is a very good form of *Cypripedium insigne montanum*, but whether it is absolutely distinct from every other one of the great number of *C. insigne* forms grown we cannot say. You should exhibit it before the Royal Horticultural Society's Orchid committee, Vincent Square, Westminster.

*Harrow.*—*Odontoglossum Cervantesi punctatissimum* is a very profusely spotted form of the type, the sepals and petals being thickly covered with bright rosy pink markings. It occasionally crops up among importations of the species, but is far from plentiful. Like the type it delights in cool, shady, and moist quarters, and the roots must be confined to pots or pans of limited size. Equal parts of peat and moss should be used as compost, only a thin layer on the surface being required. Keep the roots in a nice moist condition all the year round.

*W. R. H.*—The temperature you are maintaining for *Cologne cristata* is quite right. Do not keep water in the saucers under the plants, only water when the compost has become fairly dry. Take care that they do not suffer from the want of water, so as to cause undue shrivelling of the pseudo-bulbs. After flowering be careful to cut away only the flower-stem. When the new growth advances freely is the season for copious supplies of water, maintaining that course till the new pseudo-bulb is fully developed, then again reduce the quantity of water afforded.

*W. H. Jamieson.*—*Lelia anceps barkeriana* is not so large as many others, but very deeply coloured, the narrow sepals and petals being bright rosy purple, the lip much deeper in colour, showing up the yellow crest well. Formerly rare, it is still far from plentiful, a larger and paler form having in some cases to do duty for it. It makes a splendid contrast to the white varieties, than which it is much freer blooming. Grown in small baskets or on rafts in a good light it requires an ample water supply while growing, but when at rest very little will suffice. Repot this plant early before the roots get far advanced; in fact, when the flowers are over the sooner it is done the better.

*W. G.*—*Dendrobium dalhousieanum* is a vigorous Orchid that will reach a height of 4 feet to 6 feet, and flowers in the spring. It needs liberal treatment when growing, and a period of rest in winter, but even at that time must not be parched up. *Lelia purpurata*, *L. superbiens*, and *L. tenebrosa*, all thrive in what is known as the Cattleya house, that is to say, in just such a temperature as you name. Generally speaking, *L. purpurata* flowers in May, *L. tenebrosa* in July, and *L. superbiens* towards the winter. These need less water when the growth is completed than before, but they must not be allowed to get too dry. *Schomburgkia tibicinis* is a fine showy Orchid when in bloom, which is usually late in the spring or early summer.

*Nepenthes.*—Without doubt your *C. bicolor* is a very good variety, and will come much better when it flowers at its proper season, which is early autumn. Yes, there is a *Madevallia Pourbaixi*. It was obtained by crossing *M. Veltchii* with *M. caudata*. It is very beautiful, a good grower, and free in producing flowers, which should come in April.

## FLOWER GARDEN.

**NARROW BORDER** (*S. O.*).—Some of the Phloxes named are rather new, having been sent out but two seasons, but any of the hardy plant dealers would supply them or others just as good. They are all perennial. Phloxes are not usually a success in very dry soils, unless under the best system of cultivation. For the narrow border near the house a good display of annuals might be tried, such, for example, as Candytuft, *Dianthus Heddegi*, the Rocket *Larkspur*, *Lupinus*, and *Echscholtzias* in variety, not omitting the new *Carmine King*, which is unique in colour. For the driest part use *Gazania splendens*, which requires an early start to obtain good plants for bedding out. You may use the *Gazania*, white-leaved *Cineraria maritima*, and *Fuchsia*, say 2 feet high, for a bordering. Other plants such as *Heliotrope* and Ivy-leaved *Pelargoniums* could be used.

**BORDER CARNATIONS** (*Serepea*).—Twelve good varieties of border Carnations are: *Medea*, dark apricot; *Agnes Sorrel*, crimson; *Lady Hindlip* and *Sandridge*, scarlet; *Miss Audrey Campbell*, yellow; *The Burn*, pink; *Bella Donna*, red; *Mephisto*, crimson; *Countess of Paris*, bluish white; *Seymour Corkran*, light amber; *Hidalgo*, fancy; and *Anne Boleyn*, salmon. The very best white is *George Maquay*, although it is closely followed in point of merit by *Trojan*. Why do you not grow seedling Carnations if it is simply abundance of bloom that you require? We have seen plants that were raised from seed sown in April of the preceding year bearing literally sheaves of blossoms. Seedling Carnations produce a certain percentage of single flowers, but the great majority are double. Of course, you do not get exhibition blooms in this way, but if good seed is procured the flowers leave very little to be desired, and they are borne in the greatest profusion.

**MOSS ON LAWN** (*H. G. Hawker*).—Yes, this question has been answered before, but as it is one that is often asked we publish an answer now. Moss on a lawn invariably denotes either poverty of the soil or bad drainage. If the latter is the cause the drainage must be put right, but it is more often the former that is the cause. Try to get rid of the Moss first by surface remedies; to alter the drainage means cutting up the lawn. If the lawn is small, rake out all the Moss you can; if large, use a toothed harrow. When you have thus removed the Moss spread over the lawn a mixture of lime and soil previously well mixed, using one part of lime to four parts of soil. It is advisable also to add some lawn manure as directed by the maker. One acre of lawn takes about eight cartloads of the soil mixture. Some two or three weeks afterwards sow some good grass seed; this will thicken the lawn and so keep the Moss away. Begin the work the first week in March.

**PLANTS FOR DAMP GARDEN** (*Haide*).—The Japanese Primrose (*Primula japonica*) would probably grow very well in the moist and somewhat shady corner of your garden. We should certainly plant one bed with this Primrose. When well grown it reaches a height of 2 feet or more, bearing large whorls of crimson flowers for several weeks in succession. It is quite at home in a moist, shady spot if given a deep and rich loamy soil. The Japanese Anemone and the scarlet *Lobelia* are two other plants that would grow well in the position you describe; however, they would not flower until August. The Day Lily (*Emmercalis flava*) would probably be more suitable; it has such a sweet fragrance that it has been called the yellow Tuberose. Its large yellow flowers are freely produced in July when once the

plants have become established. There are other sorts of Day Lilies, and you might plant two or three in the same bed. *H. aurantiaca* major, with rich yellow flowers, and *H. fulva*, a larger plant than *H. flava*, with darker flowers, might be planted in the same bed.

*S. C.*—Good perennials for cutting are *Galega officinalis* and *alba*, *Galillardia*, *Coreopsis*, white and red perennial *Pea*, any of the Sunflowers (*Helianthus*), *Alstromeria aurea*, Spanish *Irises*, *Flag Irises*, single and double *Pyrethrums*, *Aster amellus*, *A. cordifolius*, *Achillea* *The Pearl*, *Chrysanthemum maximum* var. *Achillea alpina*, *Delphinium Belladonna*, *Montbretia*, *Columbine* as *Aquilegia chrysantha*, *A. caerulea hybrida*, *Aster acris*, *Doronicum*, *Pinks*, *Tritoma Maowani*, *Campanula Moerhousii*, &c.

*S. C.*—If by "shaggy" you mean the loose flowers of the Japanese sorts, we think such as *O. J. Quintus*, *Rubra*, *Amrose Thomas*, *Notaire Gros*, *Sources d'Or*, *Lizzie Adcock*, *Eycroft Glory*, *Marie Masse*, *Ormeau Masse*, *Harvest Home*, *Comtesse Foucher de Carlel*, *Market Pink*, *Bronze Martimas*, &c., would suit you. A reliable and late variety, but not loose in flower, is *Jules Lagravere*. Cuttings rooted or unrooted of these are obtainable at very cheap rates. These could not be depended upon much after October or mid-November. For later flowering *Michaelmas Daisies* would be best. It would be useless attempting seed raising of the *Chrysanthemums* for the purpose you name.

*Katie G.*—Quite safe from the attacks of both mice and birds are *Sweet Peas* when sown thinly in 4½-inch pots and stood in a greenhouse or frame. Perhaps in gardens where there is much to do, every little labour of this description renders doing it well difficult; still, the sowing of 100 4½-inch pots with soil, sowing in each one several seeds, adding a little more soil, watering freely, and standing the pots on the floor of a temperate house, or in a gently-heated frame does not take long, and once done there can be no doubt whatever but that great advantage is gained. If it be desired to have extra early flowers, some of these pot clumps of *Sweet Peas* may be shifted later into 9-inch pots, and in these be early bloomed.

*Noxius, Hull.*—The name of the plant sent is *Hepatica triloba*, which botanists call *Anemone Hepatica*. It is a well-known pretty spring flowering subject, and there are several varieties of it. By far the commonest is the single blue, while other forms are the white and the red. There are also double-flowered varieties. The best way to treat yours is to plant them out in a border of good soil, so that they may recover from the unsuitable treatment that has been given them. You cannot expect many flowers during the forthcoming spring, but next year they should give a good display. You speak of the flower as insignificant, but those sent were deformed and out of their proper season. When in good condition you will find them really very pretty.

*E. T. F.*—*Canterbury Bell*, as is well known, is a biennial, and requires to be raised from seed the year previous to flowering. If the seed is not sown till the autumn there is not sufficient time for the seedlings to make such good plants as those obtained from seed sown during the summer; but all the same the autumn-sown seedlings will nearly all flower during the following summer, and while coming into flower rather later than earlier sown seedlings the resulting plants would not be so large. With reference to *Pyrethrum roseum*, this is a perennial, and although one or two flowers might be produced during the following summer, from plants raised in autumn, they will hardly be at their best till the second year. Keep the plants in the cold frames for the winter, but give them plenty of air when the weather is suitable. Plant out in the border in March.

## KITCHEN GARDEN.

**PLANTING POTATOES** (*Bracken*).—Your strip of land, 10 feet wide and 54 feet long, should be planted in rows, for any early variety, 2 feet apart, and for a late variety 2½ feet apart. Assuming that you planted one-third the length, or 18 feet run, with an early variety that would take nine rows, and for lengths of 10 feet, nine tubers in each row, or eighty-one in all. The weight of these would depend on the size of the tubers; whole tubers should be from 3oz. to 4oz. each. Large ones, 6oz. to 8oz., should be cut down the middle twenty-four hours before planting. The best variety for you would probably be the *Early Puritan*. The remainder of the rows (fourteen), at 2½ feet apart, should be planted with similar sized tubers of *Up-to-Date*, late *Potato*, putting eight only in each row, of, of course, 15 inches apart, to give these strong growers more room. These rows will require 112 tubers to plant them. In planting, put the sets fully 5 inches under the soil. Plant about the middle of April. First dig into the ground, about 10 inches, a good dressing of half-decayed animal manure. The Potatoes may be planted with a dibber, making large holes in the ground for the tubers, or furrows, 6 inches deep, made with a spade, at the distances apart mentioned.

**ASPARAGUS BEDS** (*G. Olive*).—For six beds 9 feet long by 5 feet wide it will take ninety plants, fifteen to a bed, in three rows, five roots in a row at 18 inches apart, one row in the middle and one on each side at a distance from it of 18 inches. The best time to plant is the last week in March, and the proper way to do it is to rake off 3 inches of the surface soil of the beds into the alleys or space between the beds, then spread out the roots evenly on the surface of the beds, where the rows are to be according to the measures given. Throw upon the roots a spadeful of the soil from the alley, work it well, and press it firmly amongst the roots with the hands. Afterwards throw back from the alley as much soil as will cover the bed all over, roots and all, with 4 inches of soil, leaving the beds when finished a few inches higher than the alleys or spaces between. The beds will require no further attention during the summer than to keep clear of weeds. In the autumn, when the grass is dead and cleared off, give the beds a dressing, say, 2 inches deep, of well-decayed manure. You must not on any account cut any this year, and not too much the following year, but afterwards they should repay you well for waiting by giving you good returns for a lifetime.

*W. P. H.*—Your subsoil being a stiff clay, it will be necessary for it to be well-drained before the bed is made, or successful results cannot be looked for, as the Asparagus delights in rather light, warm, and well-drained soil.

*G. S. Thwaites*.—The value of Celeriac as a winter vegetable is not sufficiently known. Anyone who possesses a garden may grow Celeriac, as the culture is very simple. Now that Celery has become a favourite winter vegetable when boiled, there is a chance of Celeriac receiving more notice, as the flavour resembles that of Celery, and being so readily grown it should find favour. The root when boiled and served with white sauce is a perfect dish. It is one of the best vegetables to serve with poultry. There can be no objection to its preparation, as good roots sent to the kitchen are soon cleaned and ready for use, requiring less preparation than Artichokes, and not much skill in cooking, as if boiled gently and served when soft they possess the same flavour as the best Celery.

*Mrs. Darbyshire*.—Celery need not be sown before early March. Sow it in a mild hot-bed under glass in a temperature of about 60° Fahr., or you may even sow out of doors in early April. Sow the Cabbage seed the last week in March. Cauliflower may also be sown the first week in April, making the seed-bed on a well-prepared, sheltered border. You may sow the seed of Onions in March or early April out of doors, and sow the seed of Brussels Sprouts about the middle of March in shallow drills. You will thus see that it is not essential to sow any of these seeds under glass for an ordinary crop. You could, however, very well sow some seed under glass before you leave, and take the young plants with you to your summer residence. These would give you early supplies, and you could again sow out of doors as mentioned above for successional crops.

## FRUIT GARDEN.

**AMERICAN BLIGHT** (*Anxious*).—American blight is a very bad scourge in some gardens and orchards. It is a species of aphid, and amateurs will find it in masses wherever there are cracks and crevices, more especially in cankerous swellings on the bark of the trees, brought on in many cases by their own action. Strong insecticides, including Gishurst compound, well brushed into the infested places are an effective, but very slow proceeding, and to be recommended only where there are but a few small trees to be cleaned. Being well protected with the woolly covering, American blight is quite as hard to destroy as mealy bug in plant stoves. Insecticides, notably petroleum, used in a very strong state or undiluted, must be injurious to the bark of the trees; whereas if applied in conjunction with very hot water it is safe and effective.

**BLOOM ON GRAPES** (*Torquay*).—Grapes that present a polished appearance, that is to say, do not carry a good bloom, lose a point when in competition with those that are more perfect in that respect, and it is equally certain they are not nearly so much admired either on the Vines or the dining-table as they would be if well furnished with bloom. The reason for this formation of bloom we are not able to state, but are strongly of opinion that it is one of Nature's provisions for protecting the skins. If from any cause the bloom is destroyed, the keeping quality

of the berries is greatly impaired. For instance, failing to ventilate a house of ripe Grapes sufficiently and early enough to prevent a sudden rise in the temperature from sun-heat, this being accompanied by a serious condensation of moisture on the naturally cold berries, is almost certain to end in an early decay of the latter. Especially is this the case when this so-called "sweating" is not stopped soon enough to prevent the moisture trickling down the berries.

**PEAR PITMASTON DUCHESS** (*L. J. Swaine*).—Quite young wall trees produce fruit, while those six years old and upwards yield grand crops, which, if freely thinned, as they must be if samples 1lb. or little less in weight are desired, pay remarkably well. Cordons with one or several branches also produce exceptionally good crops of fruit, and no collection of wall trees may, therefore, be said to be complete unless it comprises one or more specimens of Pitmaston Duchess. This remark applies with still greater force to pyramid and rather low standard trees, but these ought always to be located in a somewhat sheltered position. If a fairly healthy young tree is planted on moderately good ground, the preference being given to a site where the subsoil is of a gravelly nature, it will, without much further trouble, quickly develop into a grand or naturally-grown pyramid, and produce several bushels of fine fruit whenever the season is not dead against fruit trees generally.

**WEEVILS** (*S. E. Eadie*).—Both the perfect insect and the grubs of weevils are greater enemies to the fruit crops than is generally supposed. In some gardens and orchards the Gooseberry crop is quite spoilt, owing to the calyces of the flowers being eaten by weevils, the flowers of Apples and Pears also suffering from their attacks; while the leaves of Vines, Raspberries, Strawberries, and sometimes Apples, Pears and Plums are frequently badly eaten by either the grubs or perfect insects. Catching the weevils during the summer by the aid of a light and a cloth spread under the trees is a good remedy, but much may be done now towards lessening the evil. Remove all loose soil and rubbish from under the trees, and either lightly fork in a good dressing of caustic lime, or, better still, apply the petroleum and hot-water remedy. This syringing well into the wall crevices, and in particular washed down into the soil close up to the walls, would destroy the greater portion of the weevils there hibernating.

*Hingour*.—The variety is Pitmaston Duchess. The cause of decay in patches here and there is, we think, the result of minute punctures of wasps or large flies in late summer and autumn. Any injury to the surface of the rind by punctures or bruises sets up decay as soon as ripeness approaches.

*Devon Parson*.—Standard fruit trees planted two or three seasons ago will now require some attention; of course this will not apply to the young trees you have just planted, these will require a little shortening back of the main leaders later on. As you note, thinning out is far better than pruning the earlier planted standards. Here and there some shoots crossing others may require clean cutting out. Small, useless spray should be also removed, but the severe cutting back often practised is unnecessary. The tops of the trees require to be kept open. Leading shoots should grow outward, not cross each other, and each one should have ample space. Cutting out useless or crowded wood, and giving ample room for future development are important matters. Cox's Orange Pippin is not a strong grower, and requires very little pruning once the trees are formed.

## MISCELLANEOUS.

*Devon Parson*.—Yes, we consider that Bentley's Concentrated Alkali as a winter wash for fruit trees is preferable to lime. The alkali not only arrests and disperses the canker, but by reason of its caustic properties removes all Moss, lichen, &c., at the same time it causes all rough or decayed bark to fall. It may be applied at any time during the dormant season, but the best time is in February. The maker is Bentley, Barrow-on-Humber, Hull, and the alkali is supplied in small tins. Yes, hot lime will arrest the spread of canker. We fear there is no really safe cure with trees in a bad way, but attention to trees in the early stage of the disease and lime used in a fresh state is advised. The best syringe for spraying is, undoubtedly, the Four Oaks Undentable Syringe, 1½ inch barrel, 20 inches in length. It is the best syringe we know of, as there is a firm grip, and it does not get out of order. It is guaranteed for three years, and may be procured from any good seed or sundriesman.

*H. W. Barclay*.—There is nothing to show in the piece of Clematis stem you sent what the cause of the injury was; there is no sign that it had been attacked by a wood-boring or any other insect. I cannot at present say what is the cause of the warty growth, but I am trying to find out. I do not think it is of fungoid origin, but an attempt of the plant to repair the injury, and I will let you know if I can find out anything definite. From what you say of the condition of the plant there can be very little left of it, so it would be safer to grub it up.—G. S. S.

*R. H.*—You do not say whether the plants are wanted for exhibition or for conservatory decoration, and for this reason we give below the names of good white sorts, hoping in this way to meet your needs. The Japanese varieties we recommend are: Ivory, a very free-flowering bush plant, developing reflexed blooms of good form, height about 3 feet. Mme. A. Duhamel is a pure white of large size and good form, having a dwarf habit; gives good results when disbudded. Incurred varieties with white flowers are less easy to find. You cannot do better, however, than grow Mrs. George Rundle, free-flowering and of easy culture. This plant is rather tall, and for this reason should be pinched back two or three times before the middle of June. Souvenir de William Cillbran is a pure white sort, with broad smooth forets.

**CABBAGE MOTHS** (*Nowick*).—The grubs attacking the roots of your plants are the caterpillars of the common dart, or Cabbage moth (*Agrotis segetum*). This is a very troublesome pest, as the caterpillars feed on the roots of a number of different plants. During the day they lie hidden in cracks in the soil or under clods, stones, &c.; it is almost impossible to kill them with any insecticide. Moreover, they are exceedingly active for caterpillars, and have the habit of frequently moving from one plant to another, so that it is difficult to know where they may be. Any stones, rubbish, clods, &c., near plants which have been attacked should be turned over to see if any of the caterpillars may be hidden under them, and if the ground is at all cracked, fill the cracks with soapy water, which will at once bring any that may be in them to the surface. Turning up the ground near the plants is also very useful.—G. S. S.

**NAMES OF FRUIT.**—*K. Stanton, Darlington*.—1, Winter Peach, dessert, and a late keeper; 2, Stamford Pippin, cooking or dessert, and will keep until February.

**NAMES OF PLANTS.**—*W. G.*.—1, A succulent, probably a Stapelia, but as there are over sixty species it is impossible to say anything more definitely from a small shoot. This needs a sunny shelf in the warmest part of the greenhouse, and little water is required in winter, but of course more in summer; 2, *Odontoglossum pulchellum*, a pretty little Orchid with white flowers in spring. Will succeed in the coolest part of the structure named by you, and must not be kept dry at any time; 3, Apparently an *Oncidium*, but without flowers we can say no more. It should do well in your house.—*Bogart*.—1, *Petasites fragrans* (Winter Heliotrope); 2, *Anemone blanda*; 3, *Alyssum saxatile*; 4, *Berberis vulgaris*; 5, *Olearia Haastii*; 6, *Cornus sanguinea* (Dogwood).—*G. Tweedell*.—*Pyrus terminalis* (Wild Service Tree).

## BOOKS.

**Notes on the Life History of British Flowering Plants.\***—We have omitted the sixteen lines of qualifications which follow Lord Avebury's name on the title-page, his own name being a quite sufficient guarantee for close observation and unsparing pains. Unluckily, however, it also suggests a want of form and tendency to relapse into catalogue, and both the better and the worse characteristics are exemplified in this rather curious volume. Lord Avebury has apparently hesitated between a Floral Dictionary supplementary to existing "Floras," and a book on Botany, touching on many interesting points hitherto unworked, or insufficiently worked, in the life history of British plants. It thus tends to fall between two stools. As a dictionary, it is excellent as far as it goes, but is made awkward for reference by the cross-division of the chapters, some being on parts of the plant (fruit, leaves, and stem), while others are on Orders (Coniferae, &c.). On the other hand, this kind of division and the dictionary style of treatment make it impossible for continuous reading. The result is a valuable book of reference very awkwardly arranged, though, after we get to classification, it follows Bentham's Handbook.

But though the greater part of the book is merely of the dictionary type, there are many interesting notes. We have known County Council gardening lecturers, for example, tell

\* "Notes on the Life History of British Flowering Plants," by Lord Avebury. London: Macmillan and Co., 1905.



cottagers to tear out Mistletoe from their Apple trees, on which it is common in some southern counties, because it is a parasite, and must injure the trees. They are naturally bewildered, because they know by observation that their trees with Mistletoe on them are at least as healthy as those without it. Lord Avebury comes to their rescue by pointing out, what County Council instructors have mostly never observed, that "the evergreen leaves well serve for the construction of carbo-hydrate in the winter, when in most cases the host plant will have shed its leaves. Hence the relation between Mistletoe and host becomes one of *symbiosis*, involving, that is, a certain mutual advantage." It is odd, by the way—surely by an oversight—that Lord Avebury makes no mention as a host for Mistletoe of the Oak, its traditional ally, from which it is chiefly gathered at Christmas in the New Forest. He calls the Black Poplar its favourite tree, and says that it does well on the Apple and some Conifers. We should rather place the order of its favourite trees in England as Apple, Oak, and Poplar (not the Lombardy), but it has been grown on many kinds of trees, including even the Peach.

We may note a few other valuable observations. It seemed absurd that farmers should suspect the Berberis of injuring wheat. But it has now been found that "the *Puccinia graminis* to which rust is due passes through two phases; in one it lives on wheat, in the other on the Berberry!" It is never wise to despise traditional beliefs, however unfounded they may seem. A very interesting explanation is given (page 37) why the stems of most plants are round, and why the triangular or quadrangular or other exceptions are created to anticipate the building of our modern girder-bridges. Or take again the very full explanation of the peculiar shape of the English Oak leaf (page 362), or the way that humble-bees round on plants which hide their honey too carefully by biting them through the throat or the spurs, or the reward of flies for greedy habits given by the Drosera, or for alcoholic tendencies in the *Arum maculatum*. It is only a pity that there is not a somewhat larger proportion of this excellent reading.

It seems a pity that a scholar like Lord Avebury does not refuse to adopt nurserymen's sometimes terrible "Latin," especially in such fearful words as *leucocum* for *leuco-ion*. Would any tortures induce him to speak of that beautiful play, the *Jum* of Euripides? And what would Macaulay have said (had Lord Avebury been a Tory writer) of the plural *probosces* (page 189) for *proboscides*? But it is a book full of careful observation, well printed also, and sufficiently indexed, and far better deserving than most of its kind of a place in the garden library.

**Journal of the Royal Horticultural Society.**—In a prefatory notice to the last part of Vol. XXIX, the editor, the Rev. W. Wilks, M.A., "apologises to the Fellows for the great delay experienced in the issue of the final part of the present volume. That delay is entirely the editor's fault—or perhaps he might more truthfully say it is the result of the wonderful growth of the society of recent years, rendering it impossible for one individual to perform both the secretarial and editorial work of the society." He goes on to say: "A few of the Fellows may blame the secretary-editor for not relinquishing one or other of his offices sooner, but the vast majority will condone the offence on account of the object which he has ever had in view, viz., the growth and prosperity of the Royal Horticultural Society." We think most of the Fellows will endorse these latter remarks, and at the same time will be glad of the opportunity of studying the many valuable essays which the Journal contains. Among its contents there is the "Report of the Committee on the Fruit Industry." "This report," says the editor, "is so intimately connected with one large branch of the work of our society that the chance of any but a very small proportion of our Fellows seeing

it otherwise has induced me to print it in full." This, the last part of Vol. XXIX, opens with a long article, illustrated by coloured diagrams, on "Fungoid Pests of Forest Trees," by Dr. Cooke. This is followed by many others on such widely different subjects that every Fellow is sure to find something of interest. Some 200 pages are filled with "Notes and Abstracts," while the reports of the fortnightly meetings of the various committees, and details of exhibitions held, occupy nearly 100 pages. This Journal gives full particulars of the various shows to be held during 1906, and much other information useful to Fellows.

## THE KITCHEN GARDEN.

### THE SMALL SAVOY CABBAGES.

**A** FEW years ago there were only three or four Savoy Cabbages, but there is a larger number now. Large sorts are not wanted in a private garden, as an equal quantity can be grown of the smaller sorts, which, in my opinion, are hardier and of a better flavour. The small, compact, green Savoy is less influenced by cold and wet than the large, flat, Drumhead section, which in changeable weather soon split and are almost useless, whereas the others remain sound. One of the most important advantages to the private grower is that the small Savoy can be grown in a much shorter time, and it often happens that the ground is occupied by other crops, so that the Savoy cannot be planted early. The small varieties grow so quickly that they soon recover lost time, and, being small, so many more may be planted in a small space. It is best to sow in March and May. Make several plantings, and there will be no scarcity of good heads from October to April. The first of the smaller sorts is

*Earliest of All*, which is well named, as it is remarkably early. It is ready for use in less than four months from the date of sowing the seed, and given good culture the heads are conical and very sweet in flavour. It is an ideal vegetable in gardens where room is none too plentiful. I am not sure that too early Savoy is much required, as they are of greater value when other good vegetables are getting scarce. By this I do not mean early Savoy is not required, but that they should not be sown so early as to starve in the seed bed before being planted out. To follow the last-named,

*Tom Thumb*, one of the smallest, and also one of the most delicate, should find a place. This little Savoy, when planted in June 12 inches apart, will be valuable for October. It may be that larger heads are not required, and the *Tom Thumb* may be sown to form a succession. The

*Improved Dwarf Green Curled* is better known. This is a selection from the older Green Curled, and a more shapely plant. It has a good solid head, is remarkably hardy, and a valuable mid-winter Savoy. Another of the dwarf sorts is

*Reliance*, and one of the best in every way; indeed, if I was only growing one variety I should give *Reliance* the preference. It is a large *Tom Thumb*. It is one of the latest of all, and certainly one of the hardiest, and is a most valuable Savoy for supplies early in the year. It is very much curled, very solid, and very sweet. Of older sorts the

*Early Ulm* is a good type, when a good stock can be obtained, and the same remark applies to the *Green Curled*. Both these when first introduced were most valuable additions. There are others, and some may be termed medium growers, but I need not go into details. I should state that on the Continent the golden types find favour. There is a Golden Globe well worth cultivation, if the yellow types are liked. This gets a brighter colour as the winter advances. It is a late variety and hardy, good in flavour also, and in size resembles Dwarf Vienna; it is a medium grower.

G. WYTHES.

## POTATO TUBERS NOT DECAYING.

I THINK it is now satisfactorily shown that non-decay in planted Potato tubers is due to over-ripening, or, in other words, to the absence of sap in sufficient quantity to produce that wet decay which characterises all planted tubers that do decay. We find that tubers grown on stiff clay soils, or in the North where that form of dry ripening is wanting, invariably decay, whether planted whole or otherwise. We seem to have in the flesh of these sapless or over-matured Potatoes very much that description of flesh which is found in Columbian or Canadian Apples. These if bruised never present the form of wet rot seen in British Apples, ours being less highly matured, but moister or more sappy. Very rarely did I see planted tubers come out whole when growing them on stiff soil. On our dryer Surrey sand the phenomenon is common. Last spring I planted, for instance, sets of equal size, and equally cared for, of Sutton's Discovery from Surrey sand and from Cheshire. In the former case every tuber came out as planted. In the latter not one did so, all being decayed. The tuber crop also lifted was doubled. I have not found in sprouting tubers from diverse soils or climates any difference so far as strength of primary sprouts was concerned. The after-growth has, however, been very different. Not only are we at present, according to evidence, driven to hold that immature or unripened tubers give better crops than do those fully ripe, but also, that being more moist or sappy, and therefore having more of soluble food in them on which the young plants can feed, they thoroughly decay, and in the process of decay become equivalent to manure. Carl, so called, is evidently due to the same cause. It is apparently never seen southwards in stocks freshly imported from Scotland or Ireland, but does present itself if seed tubers from these stocks be saved and planted the following year. Anyone can make a trial of immature tubers if they will lift some from plants still green in August.

A. D.

## SOCIETIES.

### CROYDON AND DISTRICT GARDENERS' SOCIETY.

THE annual general meeting of this society was held recently, when Mr. M. E. Mills was in the chair. Mr. F. F. Bunyard read the balance-sheet, which showed that the receipts during the past year amounted to £68 2s. 1d., and the expenditure to £55 5s. 9d., leaving a balance in hand of £12 10s. 3d. This, on the motion of Mr. Harris, seconded by Mr. Collins, was adopted unanimously. The report was then put before the meeting. During the year nineteen meetings had been held, at which lectures had been given, and special thanks were due to the lecturers. The annual outing was to the Royal Horticultural Society's Gardens, Wisley, on August 16, and the members taking part had a thoroughly enjoyable day. An innovation in the programme of meetings was successfully carried out by way of visits to the gardens of Mr. F. Lloyd, Mr. C. Hay Walker, and Mr. W. Noakes. The society mourned the loss of one of the vice-presidents (Mr. F. W. Burbridge, V.M.H.). The Royal Gardeners' Orphan Fund benefited to the extent of £2, which had been contributed by members at meetings during the year. Mr. Bunyard proposed, and Mr. Harris seconded, that the president and vice-presidents, with the exception of Mr. Burbridge, be re-elected. This motion was carried unanimously. On the motion of Mr. Harris, seconded by Mr. Dingwall, Mr. Bowson was elected chairman. Mr. Cutler proposed that Mr. W. Bentley should be vice-chairman during the year. This was seconded by Mr. Ricketts, and carried unanimously. Mr. F. F. Bunyard was re-elected treasurer and Mr. H. Boahler secretary for the coming year, and the committee were re-elected, with the addition of Messrs. W. Collins and W. H. Young.

The programme for 1906 is as follows: February 6—"Water in Relation to Plant Life" (illustrated), by Mr. H. O. Etherington, Carshalton. February 20—"Calceolarias," by Mr. T. Crosswell, Eden Park. March 6—Discussion. March 20—"The Properties of Soils" (illustrated), by Mr. F. W. Moore, Stanley Grove, Croydon. April 4—An evening with the horticultural books in the lecture room at Public Libraries, Town Hall, Croydon. April 17—"Early Flowering Chrysanthemums," by Mr. W. Wells, Mersham. May 2—Spring Flower Show. May 15—"Roses," by Mr. W. C. Blaxill, Reading. June 6—Visit to Coombe Wood, Croydon, by kind permission of A. Lloyd, Esq. (members will assemble outside main entrance at 5 p.m.)

### THE GARDENERS' ROYAL BENEVOLENT INSTITUTION.

THE annual general meeting was held at Simpson's, Strand, on Thursday, the 18th inst. Mr. Harry J. Veitch presided over an attendance of about twenty. Among those present were: Dr. Masters, Messrs. J. McIndoe, G. Monro, Bert Monro, E. T. Cook, S. Mortimer, James Hudson, W. Denning, E. Piper, F. Cooper, E. J. Frogbrooke, H. G. Cox, J. Willard, W. Ieston, E. F. Hawes, A. Seegar, and G. J. Ingram (secretary).

After reading the notice convening the meeting and the minutes of the last general meeting, the secretary read the following

#### ANNUAL REPORT FOR 1905.

The committee have again great satisfaction in congratulating the friends and subscribers to the institution on the continuance of its prosperity and increasing usefulness. At no former period of its existence has so much been done on behalf of the unfortunate members of the horticultural community who have sought the aid of the charity during the past year. That this is so, the committee venture to think is a matter for congratulation and encouragement.

At the beginning of the year there were on the funds 214 persons—127 men and 87 widows—receiving £20 and £16 per annum respectively for life, at an annual cost of £3,792, being an increase of seven persons over the previous year. During 1905 eighteen pensioners died, four leaving widows, who, their cases being found eligible and deserving, were placed on the funds for the widow's pension without election, in accordance with Rule III, 13.

Thus at the close of the year there were 200 persons receiving annuities for life, and feeling assured of continued aid, as they hope, increased support, the committee recommend the election this day of eighteen persons from the approved list of forty-four candidates. This will make a total of 218 annuitants on the funds—the largest number at any time in the history of the charity.

Notwithstanding this, unfortunately there will be twenty-six unsuccessful applicants, who must anxiously await a further election a year hence, before receiving the permanent aid they so much need. The committee wish the annual income enabled them to assist a larger number, but in adding four additional beneficiaries they feel they have done all that the state of the funds warranted. The special funds at the disposal of the committee are of the greatest benefit. The income from the "Victorian Era Fund" has been applied in affording assistance to the unsuccessful candidates at the last election, who were formerly subscribers, £157 having been distributed among them during the year, while the income from the "Good Samaritan Fund" has enabled the committee to make grants of nearly £100, as temporary help in cases of most urgent distress and need.

The committee have again to refer to the kindness of their colleague, Arthur W. Sutton, Esq., J.P., V.M.H., in providing a year's pension to an unsuccessful candidate, who, needless to say, has been deeply grateful for the liberal help. The committee also thankfully acknowledge the help afforded them by the Hirst and Son Musical Society (Edward Sherwood, Esq., President), who gave a dramatic performance in aid of the funds; to the George Monro Concert Committee; to the organisers of concerts, &c., at Liverpool, Altrincham, Chertsey, Reigate, Chesham, &c., as well as to the Right Hon. Earl Beauchamp, K.C.M.G., for the opening of Madresfield Court Gardens, per Mr. W. Crump, V.M.H.; and to Frank Crisp, Esq., LL.D., J.P., for proceeds of admission to Friar Park Gardens.

The Annual Festival Dinner, held at the Hotel Metropole in June last, under the presidency of his Grace the Duke of Westminster, was most successful, and the committee desire to place on record their gratitude to the Duke for his presence and advocacy of the claims of the charity, as well as for his Grace's personal munificent contribution to the funds. They also take the opportunity of expressing their best thanks to those gentlemen who acted as stewards or collectors; to the donors of flowers; to the horticultural press for their gratuitous and valuable help; to Mr. James Hudson, V.M.H., for superintending the decorations on the occasion; and to other friends throughout the country.

The several auxiliaries still prove most useful adjuncts to the work, not only in obtaining a large amount of financial support to the charity, but also in creating a wider interest in its operations. To the honorary treasurers and secretaries, as well as to the local committees, most grateful thanks are tendered.

With the deepest regret the committee have to refer to the loss of many warm friends and supporters by death during the past year. It will be difficult to fill the places of these staunch friends who have passed away, but it is a matter for congratulation that several new annual subscribers have been obtained, which will to some extent compensate for the monetary loss sustained. The committee therefore pursue their work with confidence, feeling assured that this old-established horticultural charity (the only one of its kind), which, though having its centre in London, dispenses its benefits throughout the United Kingdom, will not appeal in vain to the thousands of lovers of gardening and flowers for continued and additional support.

In proposing the adoption of the report, Mr. Veitch said that while, after last year's election, there were 214 pensioners on the funds, this year there would be 218, including the 18 candidates to be elected that day. Even then there would be 26 unsuccessful candidates. Some might think that more pensioners should be put on the funds, but the committee had

gone carefully into the matter, and some thought even that as many as 18 ought not to be put on. Mr. Veitch referred to the good work done by the Good Samaritan and the Victorian Era Funds, and mentioned a case that had come under his notice—that of a lady now residing in France, whose late father was one of the best-known men in the horticultural world—in which help given from the Good Samaritan Fund had been most gratefully received.

The resolution was seconded by Mr. Cooper, and carried unanimously.

Mr. Piper proposed that Mr. H. J. Veitch be re-elected treasurer for the ensuing year, and that the best thanks of the meeting be given to him. This was seconded by Mr. G. Monro, and carried with acclamation.

Mr. G. J. Ingram was unanimously re-elected secretary, on the proposition of Dr. Masters, seconded by Mr. G. Monro.

Mr. H. G. Cox proposed that Messrs. W. Atkinson, N. F. Barnes, P. R. Barr, P. Blair, W. Denning, J. Douglas, George Morris, H. W. W. Nutting, and G. Wythes, who retire by rotation, be re-elected, and that Edward White be elected on the committee in the place of M. Gleeson, resigned. This was passed unanimously.

The scrutineers of the ballot, Messrs. Bert Monro and H. G. Cox, the auditors and arbitrators, were then elected. The scrutineers gave the following

#### RESULT OF THE POLL.

1. Fitt, Juliet	3,307	11. Ward, Bethlah	2,543
2. Williams, Elizabeth	3,244	12. Moore, William	2,507
3. Ranson, Charles	2,891	13. Stone, James	2,444
4. Goddard, Stephen	2,734	14. Down, Mary	2,365
5. Clarke, Isabella M.	2,730	15. Salway, Richard	2,334
6. Ricks, Mary	2,655	16. Clement, Isaac	2,243
7. Scott, G. B.	2,655	17. Fenn, Sarah A.	2,236
8. Egglestone, Wm.	2,621	18. Smith, William	2,226
9. Stubbs, Elizabeth	2,612	19. Smith, Thomas	2,068
10. Wickens, William	2,599	20. Woods, Joseph	636

\* Thomas Smith was put on the funds on the proposition of Mr. Denning. He was first on the list of unsuccessful candidates. Life subscriber for nineteen years.

† Joseph Woods, who was put on the funds on the proposition of the committee, had only 636 votes to his credit, although he had been a candidate at six elections.

The scrutineers of the ballot reported that fifty-two voting-papers were unsigned, resulting in a loss of 345 votes.

Votes of thanks to the chairman and other officers concluded the meeting.

#### THE ANNUAL SUPPER.

It has been the custom for many years to hold a supper immediately after the business of the annual meeting has concluded, and after a lapse of two years, owing to rebuilding, it again took place at Simpson's, with Mr. George Monro in the chair. It was, as usual, a pleasant gathering of the committee, and among those present were Messrs. H. J. Veitch, Edward Sherwood, William Sherwood, Edward White, Owen Thomas, H. Morgan Veitch, A. Watkins, J. Asbee, W. Piper, Peter Kay, E. T. Cook, C. Osman, H. G. Cox, H. Hooper Pearson, H. G. Cove, and H. Harrison Dick. Much the same information is forthcoming at the annual supper as at the meeting held before, but one of those pleasant surprises which we seem to have grown almost accustomed to came from the chairman. He announced that Mr. N. N. Sherwood, who is so generous a helper not only to horticultural charities, but other organisations also, had given £50 to be distributed among the unsuccessful candidates, and a telegram was sent to Mr. Sherwood thanking him for his timely gift. As the chairman pointed out, there is need for continued earnest work if the charity is to bring relief to even a portion of those who apply to it in the hour of distress.

Mr. H. J. Veitch, in a very happy speech, said he had occupied the position of treasurer for twenty years, and briefly traced the growth of the institution during that period. He made special allusion to the Good Samaritan Fund and the Victorian Era Fund, which deserved hearty support. They were of incalculable use in helping those who were either unsuccessful candidates or had not yet applied for relief. The committee carefully considered the cases, and sent at once the sum voted, so that the applicants obtained immediate relief. The committee felt the importance of these funds, and wished there were larger sums to disburse.

The health of "The Chairman" was proposed by Alderman Piper, and rapturously received. The good work accomplished by Mr. Monro in the interests of the Gardeners' Benevolent Institution is well known. May he long continue his endeavours to help the needy gardener and his widow.

Mr. Morgan Veitch proposed "The Committee," which was responded to by Mr. Owen Thomas.

Mr. H. G. Cox, of Messrs. Sutton and Sons, in replying to "The Auxiliaries," alluded to the great work that had been carried out at Reading and elsewhere. Such work removed the impression that the institution was a London society, and established it upon a wider and firmer foundation.

The health of "The Secretary" (Mr. G. J. Ingram) was proposed by the chairman, and received with ringing cheers. The work of Mr. Ingram during the fourteen years that have elapsed since his appointment was briefly reviewed, and we think that without the perseverance and tact of the secretary and his real love for the institution it would not occupy the strong position that it does to-day.

Mr. Ingram, in his reply, referred to the good effected by the Victorian Era and Good Samaritan Funds.

There was excellent music, and the evening was a thoroughly enjoyable one.

### SCOTTISH HORTICULTURAL SOCIETIES.

GLASGOW SEED TRADE ASSISTANTS' ASSOCIATION.—A company of about sixty, composed of members of the Glasgow Seed Trade Assistants' Association and their friends, sat down to dinner in the rooms of Messrs. Ferguson and Forrester's restaurant, Glasgow, on the evening of the 13th inst. Among those present, in addition to the members of the association, were Mr. James Whitton, superintendent of the Glasgow Parks; Mr. Cairns, and Mr. Leighton; while the chair was occupied by Mr. Hunter, of the firm of Messrs. Austin and McAsian, nurserymen and seedsmen. A most enjoyable evening was passed.

NEWTON STEWART AND MINIGAFF.—On the evening of the 13th inst. this society held its annual meeting in the Mac Millan Hall, Newton Stewart, ex-Provost A. B. Matthews in the chair. The secretary, Mr. T. Morton, read his annual report, which was generally of a satisfactory character, although the bad weather on the day of the show had caused a large deficiency. The prize drawing promoted by the society had, however, been very successful, and a balance was left, after wiping off the deficiency, of about £78, subject to audit. The report was adopted. It was agreed to give the secretary and treasurer the sum of £20 as an honorarium for the work done during the last two years. A proposal to hold an amalgamated show in conjunction with the Dumfriesshire and Galloway Horticultural Society was also considered, Mr. S. Arnott being present as a deputation from the latter society; but, as the number of votes in favour of and against amalgamation was equal, the chairman gave his casting vote in favour of maintaining the *status quo*. Mr. Arnott was thanked for his presence. The office-bearers for the year were then elected, Mr. Matthews being again appointed chairman, and Mr. T. Morton secretary and treasurer.

### NATIONAL CHRYSANTHEMUM SOCIETY.

THE executive committee of this society held a busy and somewhat protracted meeting on the 15th inst. at Carr's Restaurant, Strand, when the chair was taken by Mr. Thomas Bevan. The minutes and correspondence, being duly disposed of in the ordinary way, were followed by the committee's consideration of the balance-sheet for the past year and the draft report, both of which will be presented in proper form to the annual meeting next month. It was also announced that a copy of the "Repertoire des couleurs" had been purchased in accordance with the committee's wish, and that the same would be in use next season by the floral committee, to whose chairman the work was accordingly handed over. With regard to the conference on early-flowering Chrysanthemums held at the Crystal Palace in October last, the hon. secretary, Mr. G. H. Curtis, reported that all the material was now ready for publication. It was resolved that the same be printed in independent form for distribution among the members. For Mr. Curtis's valuable services in connexion with the organising of this conference he was awarded the silver medal of the society and a vote of thanks. The discussion upon this report gave rise to enquiries as to the possibility of the National Chrysanthemum Society producing a Chrysanthemum annual or a journal to appear periodically. This gave rise to an interesting debate, with the result that a sub-committee was appointed to consider and report upon the whole question, six members of the executive committee, with the officers, being nominated for the purpose. Mr. Harman Payne reported upon the work of the sub-committee elected to consider applications for the post of general secretary, and this was adjourned for a week.

### GUILDFORD AND DISTRICT GARDENERS' ASSOCIATION.

THIS association held its second annual meeting on the 9th inst., the president (H. A. Powell, Esq., J.P.) presiding. The secretary (Mr. A. E. Upton) presented the report and balance-sheet for the past year, showing a balance of £2 12s. The society has aroused keen interest in the Guildford district, having over 100 members in the first year. The Mayor of Guildford (Mr. F. F. Smallpiece) was elected president for the ensuing year, and, judging by the support given to and interest taken in the well-attended meetings during the first year of its infancy, the society should prove a most successful one.

### PLYMOUTH GARDENERS' SOCIETY.

#### LECTURE ON VIOLETS.

THIS society held a meeting recently at the Mutley Grammar School, Mr. Damerel in the chair. Mr. W. G. Edwards, gardener to Colonel Gore, South Wembury House, read a very interesting and practical paper on "The Culture of Violets." Mr. Edwards recommended where possible that the soil should be sandy loam, deeply dug, and well dressed with cow manure, and the cuttings, runners, or crowns to be planted not later than the second week in April. He very strongly recommended Violets for pot culture for the drawing-room or as window plants. After enumerating the many kinds in cultivation, Mr. Edwards gave a lengthy description of the several diseases to which the Violet is subject. He illustrated his lecture by a very excellent lot of Violet flowers of different kinds, also a model of the kind of frame which he considers the best—ordinary box cucumber frame. There was a very fair attendance of local gardeners, and several questions were asked and satisfactorily answered. Messrs. Challoe and Bon, Plympton Nurseries, kindly sent table plants, also cut flowers of Rhododendrons and of the beautiful new Camellia kalmiana Miss Richardson.

## ROYAL HORTICULTURAL SOCIETY.

THERE was a small, though very interesting, exhibition at the Royal Horticultural Hall on Tuesday last, the 23rd inst. A full report appears below.

## ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. J. O'Brien, de B. Crawshaw, J. Wilson Potter, W. B. Hall, W. H. Young, H. A. Tracy, A. A. McBean, H. T. Pitt, G. F. Moore, Francis Wellesley, E. Ashworth, Harry J. Veitch, Jeremiah Colman, J. Charlesworth, W. A. Binney, H. Ballantine, and F. W. Ashton.

Baron Schröter, The Dell, Egham (gardener, Mr. Ballantine), exhibited a group of beautiful Orchids in considerable variety. There were several lovely varieties of *Odontoglossum crispum*, while *O. harrystan-crispum*, *O. elegans*, *O. luteo-purpureum*, and *O. hybridum* were finely represented. Among the Cattleyas were *C. Trianae russelliana* and *C. peruviana*. *Cypripediums* comprised *C. insignis sanderianum*, *C. Salteri* var. *hyeanum*, *C. lathamianum* superbum, *C. Maudslayi* The Dell variety, and others. *Sophronitis grandiflora*, *Laelia anceps* alba, *L. a. sanderiana*, *L. a. williamsiana*, *Madevillia ignea*, and *Cattleya Harriet* were also shown. Silver-gilt Flora medal.

Messrs. Cypher, Cheltenham, made a bright display with a large group of Orchids in variety, the varieties of *Laelia anceps* being particularly beautiful. Among the latter were *L. a. peruviana*, *L. a. sanderiana*, and *L. a. Dawsonii*. *Cypripediums* were represented by *C. Fascinator*, *C. Thompsoni*, *C. aureum virgineum*, *C. Mme. Jules Hye*, *C. deodmanianum*, *C. Euryades*, and other good sorts. *Odontoglossum grande*, *Laelio-Cattleya Lydia*, *Ada aurantiaca*, *Lycastes*, and *Cattleyas* added to the beauty of the group. Silver-gilt Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, exhibited a magnificent group of *Laelio-Cattleya Charlesworthii* (*L. chinabarina* X *C. aurea*). The mass of rich apricot-coloured flowers made a brilliant display, the finest bit of colour in the hall. Other good things shown by Messrs. Charlesworth were *Cattleya Octave Doin*, *L. C. Andromeda*, *Odontoglossum Ruliers*, and *O. crispum Clarissa*. Silver-gilt Flora medal.

Messrs. Hugh Low and Co., Enfield, exhibited a number of choice *Cypripediums*, including *C. calloso-Charlesworthii*, *C. Euryades* 1901, *C. aureum Odippe*, *C. Mrs. W. Mostyn Chardwar* var., *C. leucanum clinkberryannum*, *C. Venus* (insigne *Sanderis* X *virgineum*) and *C. nitens magnificum*; a very beautiful lot. Silver-Bankian medal.

Messrs. Heath and Son, Cheltenham, exhibited a collection of *Cypripedium hybrids*, e.g., *clinkberryannum roseum*, *aureum virgineum*, *fowlerianum*, *youngianum*, *Amy Moore*, and others.

The spotted *Odontoglossum* exhibited by M. Ch. Vuytatek, Loochristi, Ghent, were a magnificent lot; they included forms of *O. ardentissimum*, *O. Vuytatekii*, *O. Ruliers*, *O. wilckeanum*, and *O. amabile*, unique in their colouring and marking. Silver-Bankian medal.

Messrs. Stanley and Co., Southgate, N., showed *Cypripedium leucanum grandisepalum*, *Odontoglossum lochristense*, and a few other Orchids.

H. Briggs-Bury, Esq., Acorington, showed a small group of Orchids that contained several excellent *Odontoglossums* and *Cypripediums*. Vote of thanks.

Messrs. Sander and Sons, St. Albans, were awarded a silver Flora medal for a group of Orchids that contained a variety of beautiful sorts. *Cypripediums* were finely represented, and included *C. nitens*, *C. Mme. de Curte magnificum*, *C. The Marchioness*, and others. *Laelio-Cattleya callistoglossa* var., *L. C. blanchelyensis*, *Angraecum sesquipedale*, *Cymbidiums*, and *Odontoglossums* made up a group full of interest.

F. W. Wellesley, Esq., Westfield, Woking, exhibited a few beautiful Orchids, e.g., *Brasso-Laelia*, *Mrs. Gratrix Westfield variety*, *Laelio-Cattleya Miss Mary Froude*, and several *Cypripediums*.

R. J. Measures, Esq., Cambridge Lodge, Camberwell, showed several *Cypripediums* and *Zygopetalum Max-jorialis*.

## NEW ORCHIDS.

*Cattleya Octave Doin*.—This beautiful flower is the result of a cross between *C. Mendellii* and *C. aurea*. It is of most attractive form. The sepals and petals are white, tinged with blush at the edges; the lip is very handsome, rich purple, with two lobes of yellow below the throat entrance. Shown by Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

*Phaius flavus*.—A very beautiful flower, deep primrose colour throughout, with the exception of the lip, which is marked with reddish brown. The throat, too, is lined with similar colouring. Exhibited by Messrs. Sander and Sons, St. Albans. Award of merit.

An award of merit was given to *Cypripedium Bridgel*, shown by G. F. Moore, Esq., Bourton-on-the-Water; but we understand that Mr. Moore wished to keep the flower for hybridising purposes, and so forfeited the award of merit.

## FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. A. H. Pearson (chairman), Messrs. J. Cheal, W. Bates, S. Mortimer, A. Dean, H. Parr, H. J. Wright, G. Kelf, F. Q. Lane, Owen Thomas, J. Willard, C. Foster, H. Somers Rivers, and W. Poupard.

A collection of Apples and Pears was exhibited by the Downer Lady Hillingdon, Wildenrease Park, Sevenoaks (gardener, Mr. J. Shelton). There were some excellent dishes among them, notably of Apples Warner's King, Striped Beauhain, Blenheim Orange, Bowhill Pippin, and Dumelow's Seedling. Ducheaux de Bordeaux, Bergamot Esperen, and Olivier des Serres were among the best of the Pears. Silver Knightian medal.

Mr. C. Foster, University College Gardens, Reading, made an interesting exhibit of forced Dandelion and

Chicory—two sorts of Dandelion, the thick-leaved and the broad-leaved, and the Witloof Chicory. Both these make an excellent salad, and we hope that this exhibit may serve to draw more attention to their merits. Cultural commendation.

## FLORAL COMMITTEE.

Present: Mr. Marshall (chairman), Messrs. Drury, H. B. May, George Nicholson, Charles Bilck, Charles J. Jeffries, Charles Dixon, H. J. Jones, Charles E. Pearson, Charles E. Shea, W. P. Thomson, J. F. McLeod, John Green, H. J. Cuthush, G. Routh, E. T. Cook, E. W. Wallace, E. H. Jenkins, J. W. Barr, George Paul, and C. R. Fielder.

Messrs. W. Cuthush and Sons, Highgate, staged a collection of the earliest hardy flowers, with which were associated such winter flowers as Christmas Eves, the latter in fine masses full of flower. It was refreshing to note so many genuine flowering plants in this group instead of the non-flowering alpine which have been so much in evidence of late. A colony of *Cyclamen Coum* was very charming, and so, too, were *Saxifraga hirsutaria* major, *Adonis amurensis*, *Iris histrioides*, *Iris alata*, *Lenten Eves*, and many others. Silver-Bankian medal.

Messrs. William Bull and Sons, Chelsea, had an exhibit of useful table plants, mostly stove subjects, as Palms, Aroids, and the like.

The Misses Hopkins, Mere, Cheshire, showed some fine masses of Christmas Eves, with a great variety of Primroses and some hardy Ferns.

Mr. A. F. Sutton, Iver, Bucks, showed some vases of lovely Tree Carnations—Nelson Fisher, Fair Maid, White Lawson, Florida (deep pink), Enchantress, and a white sport from this named Iver White that will be valuable; Christmas Eve was also very rich in colour. Silver-Bankian medal.

Messrs. Wallace and Co., Colchester, showed *Saxifraga hirsutaria* major in flower in pots.

A table of *Davallias* (species and varieties) from Mr. H. B. May, Edmonton, included some fifty-five forms, and made a most interesting display. *D. Mariet cristata*, *D. tenuifolia*, *D. decora*, *D. Splendens*, *D. retusa* (a very distinct kind), and *D. mooreana* were among them. *Camellias* in flower also came from Mr. May. Silver-gilt Flora medal.

Messrs. Hugh Low and Co., Enfield, showed in excellent form *Cyclamen Low's Salmon*, a very beautiful shade of colour especially valuable for decoration, and Tree Carnations.

Hardy flowers from Mr. G. Routh, Keaton, Kent, included *Saxifragas*, such as *S. Grisebachii* and *S. hirsutaria* in variety. Pots of *Iris histrioides* major and *Crocuses* were very beautiful. Silver-Bankian medal.

Alpines in pots and pans were shown in large numbers by Messrs. Peed and Sons, West Norwood, together with *Freessias* and a few *Lenten Eves* and *Lachenalias*. Bronze-Bankian medal.

Messrs. Barr and Sons, Covent Garden, had a small group of hardy things, in which *Lenten Eves* were quite a feature. Cut branches of the winter Jasmine, *Iris stylosa*, pans of *Crocuses*, *Narcissus minimus*, *N. cyclamineus*, with winter-flowering Heaths and the hardy *Cyclamen* made a very beautiful display.

Mr. William Seward, Hanwell, W., filled a table with *Cyclamens* in perfect condition; indeed, we have rarely seen such well-grown examples, whether in white, crimson, or other shades. Silver-gilt Flora medal.

Messrs. T. S. Ware, Limited, contributed alpine, *Iris stylosa* alba, Carnations, *Lenten Eves* in variety, with *Primula obconica*, &c. *Adonis amurensis*, *Cheiranthus kewensis*, and *Corydalis thalictroides* were also noted. Bronze-Bankian medal.

A highly interesting lot of conifers and shrubs came from Messrs. John Waterer and Sons, Limited, Bagshot, Surrey, and included *Abies Pinsapo*, golden Chinese Juniper, golden Yews, *Abies pungens glauca* (very distinct), *Cupressus macrocarpa lutea*, *Cedrus atlantica glauca*, *Sciadopitys verticillata*, and many more. Silver-Bankian medal.

A very handsome group of plants from Messrs. J. Veitch and Sons, Limited, included *Gesnera exoniensis* (very fine in colour), *Jacobinia ocoules*, *Eupatorium vernale*, *Buddleia asiatica* (see "Award"), *Loropetalum chinensis*, *Primula kewensis*, *Colinus thyrsoideus*, *Acacia leprosa*, &c. A fine assortment of winter-flowering plants. Silver-Bankian medal.

Mr. S. Mortimer again showed Tree Carnations in good form, the colours being exceedingly bright and good.

Messrs. Cannell and Sons, Swanley, contributed a large array of Chinese *Primulas* in many shades of colour, such as pink, white, and salmon, some of which were very near perfection, both in form and colour. *Moschoama riparium* was also well shown. Silver Flora medal.

Mr. J. E. Lowe, Shrewley, Hatton, Warwick, showed *Chrysanthemum Winter Cheer*, a most valuable late variety of a reddish cerise tone, a grand colour in decoration. Silver-Bankian medal.

*Freesia Chapmanii* (F. refracta alba X F. aurea).—This is a really good cross-bred form possessed of a greater vigour and freedom of flowering than either parent. The colour is yellow, with a heavy blotch of orange on the uppermost segments. With larger bulbs this is likely to prove quite an acquisition. The variety is only delicately perfumed, and was raised in 1904 by Mr. F. Herbert Chapman of Eye, who exhibited the plants.

A hybrid *Camellia* (*C. Donkelsarii* X *C. reticulata*), with scarlet flowers, came from Sir J. W. Ramaden, Bart., Farnbridge (gardener, Mr. George Taylor).

## FLORAL COMMITTEE AWARD.

A first-class certificate was awarded to *Buddleia asiatica*—A distinct and beautiful species, with white and fragrant flowers. It is not, we believe,

quite hardy, but as a cool greenhouse subject, with almost Daphne-like perfume, it will prove quite an acquisition. From Messrs. James Veitch and Sons, Limited, Chelsea.

## THE LECTURE.

In the afternoon Mr. Martin H. F. Sutton gave a most interesting and valuable lecture, entitled "The Formation and Care of Lawns and Golf Greens." We give a brief report now, and hope to refer to it more fully at a later date. Mr. Sutton first mentioned the importance of choosing a proper position; land with a northern aspect is to be preferred. Artificial drainage is essential, unless the land is sufficiently well drained naturally. As to soil, Mr. Sutton said that for general purposes nothing better could be desired than a somewhat deep rich loam sufficiently porous to allow of satisfactory drainage. Such a soil, however, is rarely available, so fresh surface-soil must be obtained from elsewhere. Care should be taken to destroy any weeds that the fresh soil may contain by burning it. The preparation of land for lawns should be commenced in the autumn, allowing the land to lie fallow during the winter. This will result in a good tilth for the seed in spring. Mr. Sutton discussed the subject of "turfing versus sowing," and expressed the opinion that turfing is a practice not to be resorted to without the strongest possible reasons. Mr. Sutton was very explicit upon the subject of "choice of seeds." The plan of creating a lawn by the sowing of one kind of Grass only is never now adopted. However suitable a particular variety may be for the soil for which it is intended, it can never give satisfaction alone. Perennial Rye Grass is probably still employed more largely than any other. In addition to this some other important Grasses were mentioned. With regard to sowing, Mr. Sutton said that, generally speaking, sowing may take place any time between the middle of March and the end of September during favourable weather. Spring sowing should be completed before the end of May. Personally Mr. Sutton is in favour of autumn sowing, as the damp mild weather of October provides ideal conditions for the germination of the seed. Having given instruction upon sowing the seed and the subsequent treatment of the lawn, Mr. Sutton went on to emphasise special points relating to croquet and tennis-lawns and bowling greens.

A hearty vote of thanks was accorded to Mr. Sutton for his valuable lecture.

## LIVERPOOL HORTICULTURAL ASSOCIATION.

THE nineteenth annual festival was held recently. The company numbered over 100, under the presidency of Mr. C. A. Young, supported by Messrs. E. P. Ker, T. Foster (chairman of committee), W. Mercer (vice-chairman), H. Sadler (secretary), G. Blackmore (treasurer), H. Middlehurst, W. Webster, C. A. Crippin, W. Rooking, A. Ker, S. Rowlands, E. B. Ker, &c. At the conclusion of the dinner the chairman gave the loyal toasts, followed by that of the society, in which he referred to the excellent work of the society. Mr. Foster stated that the committee over which he had the honour to preside was worthily supported by the officials. Mr. R. W. Ker, the treasurer and secretary, and Mr. R. G. Waterman, secretary of the Liverpool Auxiliary of the Gardeners' Royal Benevolent Institution, also spoke. The toast of "The Chairman" was received with enthusiasm.

## TRADE NOTE.

## PENNELL'S GARDEN SEEDS.

THE illustrated guide issued by Messrs. Pennell and Co., Lincoln, contains particulars of all the seeds that the average garden requires, whether of flowers or vegetables. The best varieties of vegetables are described and illustrated, and short cultural notes are given. Large numbers of flowering plants are beautifully depicted, and many hundreds are described, so that anyone should easily be able to make a satisfactory choice of garden seeds. This illustrated catalogue and guide may be had from Messrs. Pennell and Co., Lincoln.

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# THE GARDEN.

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## THE RIGHT USE OF ROSES.

**I**N these days of horticultural prosperity and rapid progress, when there would appear to be one or more specialists devoting themselves to every worthy flower, we need scarcely say that the Rose has not been forgotten. Indeed, within the memory of many who have watched its culture for the last forty years, the rapid advance is nothing less than astonishing. Our own veteran growers and some of the foreign firms seem to have vied with each other in producing new forms in the Hybrid Perpetuals and in the Teas; but it has been almost within the last decade that growers have not only deepened interest in the cultivation of the Rose, but have immensely widened it by striking out in new directions.

It is now a good many years since the Bennett hybrids appeared and gave us many forms of noteworthy novelty, but the parents of these were still among the well-known H.P.'s and Teas and Chinas. But of late years hybridists have taken in hand some of the handsomer of the species, and by working them with well-established favourites have produced whole new ranges of fine Roses. Of these the most prominent have been products of *R. polyantha*, *rugosa*, *rubiginosa*, and *wichuraiana*. The striking success of many of the later hybrids is encouraging in the highest degree, and the field for future work is so immense that the imagination can hardly grasp the extent of the prospect that these earlier successes seem to open out.

There are so many ways in which Roses may be beautiful. Even in the varied form and habit possessed by the types some special kind of beauty is shown and some special garden utility is foreshadowed. And then we think of the future possibilities of the Rose garden! So far—we say it with deliberation and a feeling of honest conviction—the Rose garden has never been developed to anything like its utmost possible beauty. The material already to hand even twenty years ago has never been worthily used. The Rose garden to be beautiful must be designed and planted and tended, not with money and labour and cultural skill only, but with brains and with love, and with all those best qualities of critical appreciation—the specially-cultured knowledge of what is

beautiful, and why it is beautiful—besides the necessary ability of the practical cultivator. There are in some places acres of Rose gardens, many of them only costly expositions of how a Rose garden had best not be made. The beautiful Rose garden that shall be the living presentment of the poet's dream, and shall satisfy the artist's eye, and rejoice the gardener's heart, and give the restful happiness and kindle the reverent wonderment of delight, in such ways as should be the fulfilment of its best purpose, has yet to be made.

## TABLE DECORATION.

A FASCINATING subject is the art of table decoration, and it is not surprising that so much attention has been devoted to it and so much improvement effected therein during the last few years. Formerly, the sole attempt at decorating a dinner-table was to place a heavy erection of flowers (all kinds mixed together) in the centre of the table, while anything in the shape of ornate floral decoration was looked upon as the height of extravagance, except in the houses of the great or those possessing large gardens. Now, table decorations have become general, and each hostess vies with the other in making the best and daintiest display. Perhaps a certain impetus has been given to this by the prominence accorded to table decorations at the various flower shows, where the prettily-arranged tables never fail to attract a crowd of admirers, and the keenness of the contest often makes the judges' task a difficult and far from enviable one.

Fashions vary in this as in all else, the present taste being for rather low centre-pieces, an improvement on the tall epergnes, which, however pretty and graceful, completely blocked one's *vis-à-vis* when seated at a dinner-table, and often made general conversation an impossibility. When considering the arrangement of a table, the size thereof and the convenience of the guests should first receive consideration; it is distinctly worrying to have one's place at a small table cramped for the sake of the hostess's flowers, however charming and artistic the effect may be. It is also wise to eschew flowers possessing a very strong scent, as it is positively obnoxious to some people to sit opposite a vase of highly-perfumed flowers, probably intensified by the warmth of the atmosphere of the room. In choosing flowers for decoration, it is well to remember whether they will be used in daylight or by artificial light, as some colours change so much. Cornflowers and Grasses are charming for a lunch-table, but the colour changes completely by evening light, losing all its

brightness. On the other hand, *Primula obconica*, which is ineffective by daylight, becomes quite a pretty pink when lighted up, and, being a free and constant bloomer forms a useful subject for decoration in winter, when flowers are scarce. Among other flowers pink-mauves light up well, but blue-mauves are for daylight use only. All shades of yellow, pink, and red are good for a dinner-table, and white, with a touch of faint, clear colour, is always dainty.

Table centres are somewhat out of date now that so many people use the popular drawn-thread table-cloths or embroidered slips on a polished table. A pretty substitute is to fluff up lightly some soft folds of chiffon in two or three different tones of the same shade as the flowers used, one over the other, round the centre-piece, which softens the effect most harmoniously. Vases and table ornaments to assist the scheme of decoration are so many and varied as to be largely a matter of choice. Silver vases are always nice, and seem to show off certain kinds of flowers to greater advantage than anything else. Glass is to be met with in a bewildering variety of graceful forms, while white china is also to be commended. Many old silver and pewter ornaments may be adapted for table decoration by a little clever manipulation, and never fail to have a charm of their own.

All flowers adapt themselves in a greater or less degree for decoration, and among so many it is difficult to distinguish any one kind as giving the best effect. Sweet Peas are great favourites, the pink and mauve being particularly pretty. Countess of Radnor and Emily Eckford blend well for the mauves, whilst *Lovely*, *Prima Donna*, and *Salopian* form a good contrast for the pinks. *Mars* may be substituted for *Salopian* if the latter be thought too dark. Use as much as possible of their own foliage with them (a rule which may be applied with advantage to most flowers), *Gypsophila elegans* and light Grass. *Shirley Poppies* and *Iceland Poppies* also combine better with *Gypsophila* and Grass than anything else.

*Hypericum* (St. John's Wort) is another good, though little-used, flower for decoration. The lower leaves should be stripped from the stems, as they are somewhat heavy-looking; here again *Gypsophila elegans* has a good, softening effect, and a little light, red-brown foliage (matching the red-brown centres of the flowers) and some sprays of *Asparagus Fern* complete a charming decoration. A dainty effect for a lunch-table may be obtained by using *Heuchera sanguinea*, *London Pride* (another little-used flower), and pink *Aquilegia*, with light sprays of green.

For striking effect nothing surpasses a decoration carried out entirely in scarlet



Geraniums; the flowers can be mounted on wires to obtain the varying heights required, and the result is most brilliant when well carried out. Roses form an ideal decoration, and, though somewhat difficult of arrangement, well repay the extra trouble. The most popular centre-piece for Roses is a bowl, but, personally, I consider this only suitable for the China and single varieties. The exhibition kinds are better displayed in tall vases, which admit of their being cut with long stems, so that the lovely blooms may stand up well and be displayed in all their beauty. Mrs. W. J. Grant is an ideal Rose for this purpose. Another good Rose, of a different character, is Dorothy Perkins; this lights up well, and its own pretty foliage forms a most effective "greenery" without the addition of anything else.

With regard to the question of additional foliage, Maidenhair Fern has somewhat lost favour the last few years, and the stronger kinds are apt to look heavy if overdone; but the variety *gracillimum* may often be used with good effect. *Smilax* and *Asparagus* Ferns of all varieties make admirable trails for the table, whilst leaves of the *Crotons* and *Dracenas* add a brightening touch of colour which is very pleasing. Whatever the flowers and foliage used may be, lightness of arrangement is the chief thing to be aimed at.

I may bring these remarks to a close by a few suggestions for suitable decoration according to season. A charming spring table may be made with pink and white Tulips (*Cottage Maid* is a good variety), Lilies of the Valley, and Ferns; a rather low centre-piece filled with these flowers, side-pieces to match, and six small specimen vases placed about the table. Trails of *Asparagus* Fern may be brought from the centre-piece, and the pale green foliage of the Lilies be freely used among the flowers. The same design may be carried out with Daffodils, their own foliage, and brown *Berberis* leaves. For summer a tall centre-piece with shaded mauve Sweet Peas, *Gypsophila elegans*, and Grasses. The little stands supporting the menu cards may be made of cardboard covered with well-damped Moss, bound on with fine wire, and the flowers, wired when necessary, stuck closely into this. Trumpet-shaped vases filled to match should be placed about the table. Pink Sweet Peas are equally suitable. A Rose scheme may be carried out with a bowl of Mme. Falcot Roses as a centre-piece. A wire stand placed in the middle of the bowl facilitates arrangement. Use their own brown-tipped foliage only, bending some of the long sprays over the edge of the bowl to rest on the cloth. The accompanying vases should be filled in the same manner, and soft folds of chiffon, shaded from orange to lemon yellow, lightly puffed round the centre bowl. *Chrysanthemums* *Sourcil d'Or* (bronze) and *Soleil d'Octobre* (yellow) form an effective autumn decoration. Long trails of autumn leaves coming from the centre-piece to the corners of the table may terminate in a design of leaves upon the cloth.

For winter *Begonia* *Gloire de Lorraine* looks bright and cheery in small silver vases, a larger vase wreathed with *Smilax* forming the centre-piece; or, should outdoor subjects alone be available, a rustic basket filled with Holly, Snowberries, *Jasminum nudiflorum*, and Christmas Roses looks well, sprays of Ivy connecting the central arrangement

with corner-pieces filled to match. Candle shades and all other table accessories should always match the flowers used.

In conclusion let me remark that the care lavished on a daintily-decorated table is never wasted. Flowers, by their beauty, lend a charm to the most frugal meal, and shed an added lustre on the costliest banquet.

EMILY E. WILLIAMSON.

Wilstead, Ethelbert Road, Canterbury.

## PRIZES FOR GARDENERS. FEBRUARY.

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA  
are offered for the best essays on  
WINDOW GARDENING.

The essay must not exceed 1,500 words in length. The subject must be treated with the object of showing how the window-box may be kept interesting all the year round. The essay must treat of plants grown outside the window only, and not of plants grown near the window inside the room.

The essay must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than February 28. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

February 6.—Meeting of the National Amateur Gardeners' Association.

February 9.—Annual Meeting of the Royal Gardeners' Orphan Fund.

February 13.—Royal Horticultural Society's Annual Meeting 3 p.m., Meeting of Committees 12 noon; Horticultural Club, Annual Meeting 5 p.m., Annual Dinner 6 p.m., Hotel Windsor.

**The Star Primula.**—In a recent issue of THE GARDEN, Mr. E. Bockett says of these plants: "Unless these are grown and produced under the best possible conditions I can see little merit in them." To my mind these words apply as much to the varieties of *P. sinensis* as they do to the *P. stellata* section. Although for garden purposes they are usually considered distinct, to be strictly correct it should be *P. sinensis* var. *stellata*. Till the advent of the Star varieties, many thought the Chinese Primulas perfect. So they may be in form and colour, but they lack the light and graceful habit of the *stellata* section. Who could but admire the graceful branching habit and the colours of these flowers, growing tier upon tier, exhibited at several of the fortnightly meetings of the Royal Horticultural Society last spring. Quite an interesting story might be woven out of the origin of the Star Primula. How many are aware that Messrs. Cannell of Swanley had been carefully tending and selecting this section for something like thirty-five years before offering it in their catalogue for the first time in 1894. The first plant is believed to have originated amongst a batch of *P. sinensis* raised from seeds sent from China. It occurred in the garden of Wilson

Saunders, Esq., then President of the Royal Horticultural Society. At that time he was a well-known collector of new and rare plants. When his collection was disposed of the Primula was taken care of by his gardener, Mr. Green, who started in business for himself near Redhill, Surrey. At his death one of his men brought the plants to the notice of Mr. H. Cannell, sen. The flowers were very small and starry, but he bought the stock, feeling sure that something useful could be evolved from them. I am told that his then Primula grower absolutely refused to have it in the same house with the best garden varieties of that time. Mr. Cannell did not despair, however, and to-day the result speaks for itself.—A. O.

**Thunbergia laurifolia.**—The Thunbergias are very beautiful stove-flowering climbers that are not very largely grown in gardens. Even *Thunbergia alata*, the lovely yellow, black-throated species which grows well in a greenhouse, is rarely seen, yet it makes a charming plant for growing in small pots for arranging on the edges of the stage. *Die Gartenwelt* gives an illustration of *T. laurifolia* growing on the roof of a hot-house, and bearing its large, pale blue, funnel-shaped flowers. A young plant will quickly reach the flowering stage if planted out in a soil composed of loam and leaf-mould, with some sand. Others neglected and now rarely seen are *T. chrysopea*, with purple and yellow flowers; *T. grandiflora*, similar to *T. laurifolia*; *T. natalensis*, with yellow corolla and blue limb; and *T. fragrans*, with pure white, sweetly-scented flowers. Propagation is easily effected by cuttings.

**Kochia trichophylla.**—This is a singularly beautiful plant that is not so well known as the familiar *Kochia scoparia*. In a recent issue of *Möller's Deutsche Gärtnerei-Zeitung* an illustration of a plant in a pot is given, together with the following particulars. The writer says that the illustration gives no real idea of the beauty of the plant, which most favourably impressed those who saw it. It is attractive during the summer months, but more especially in the autumn, when the leaves take on a charming tint. The seed should be sown in April in a frame, potting on the young seedlings as soon as they are large enough. When all danger of frosts is over they may be planted out in the garden. In favourable soil and situation the plant reaches a height of 4 feet or 5 feet, and makes an ideal plant either for the private or the public garden. It is a decorative plant of the greatest value. The flowers, which appear in autumn, are insignificant. The elegant, ornamental foliage of *Kochia trichophylla* is of a delicate clear green colouring, which during the months of September and October changes to a vivid red or red-purple, rendering the plant a striking object even from a distance. The plant retains its colouring until cut down by the frost.

**Verbena Miss Willmott.**—My experience with this sterling variety is that it is most difficult to keep the old plants through the winter, for supplying cuttings for the following year, as they are so subject to mildew. When the time comes for propagating it is impossible to get good healthy cuttings. Others with whom I have discussed the subject have complained of the same difficulty. Last year I used this variety for bedding, and it was most beautiful. In August I struck a number of cuttings and potted them on into 5-inch and 6-inch pots, three or four plants in each pot. In this way they have kept splendidly, showing no signs of mildew, and at the time of writing I am propagating with a grand lot of clean, healthy cuttings, a thing I have been unable to do before. Anyone who has experienced the same difficulty as myself in keeping the old plants cannot do better than adopt the method of rooting the cuttings in August.—J. S. HIGGINS, *Rûg Gardens, Corwen, North Wales.*

**The Kew Guild Journal.**—To enable the committee to supply the journal to friends and others interested in its contents a few extra copies have been printed. These will be supplied at 1s. per copy, postage 2d. extra, on application to the secretary.—W. N. WINN, *Royal Gardens, Kew.*

**Impatiens Holatii.**—This comparatively new East African plant seems never out of flower. In a warm greenhouse it continues in flower all through the winter. Propagation by seeds or cuttings is very easy. For brilliancy of colour it surpasses all the highly coloured varieties of *I. Sultani*. There is a future before this plant, both for warm greenhouse decoration in winter and summer bedding.—A. O.

**Winter Heliotrope (*Tussilago fragrans*).**—Few things are to be seen in flower just now, but the Winter Heliotrope is flowering very well this year, owing, no doubt, to the mildness of the season. The colour, perhaps, is not showy, but anything in flower is valuable just now. It is, however, deliciously scented, and a moderate-sized clump throws quite a dozen spikes. Planted in a mass and if possible sheltered from cold winds, it has quite a pleasing effect.—W. G.

**"All About Sweet Peas."**—This is the title of a very useful and valuable little book written by Mr. Robert Sydenham, Tenby Street, Birmingham, from whom it may be obtained for 6d. For two reasons we cordially recommend all our readers who are interested in Sweet Peas to obtain a copy of this booklet. Firstly, because it contains a description of every known variety, tells how to grow them, gives a selection of the best varieties for exhibition, and a good deal of other information that will be welcome to the Sweet Pea enthusiast. The second reason is that all profits accruing from the sale of this book are sent to the Gardeners' Royal Benevolent Institution for the relief of aged and distressed gardeners, and to the Royal Gardeners' Orphan Fund, which was founded to help the orphans of gardeners. The success of the two previous editions enabled Mr. Sydenham to contribute £20 to each of these institutions.

**"The Sweet Pea Annual."**—The issue of this publication for 1906 is full of articles on various phases of Sweet Pea culture, written by experts. In fact, it may be said to contain almost everything there is to be said about the Sweet Pea. Mr. George Massoe describes the Pea blight and other diseases that attack the Pea, and shows how they may be prevented; and there are more than twenty other chapters, each dealing with some matter of interest to the Sweet Pea grower. "The Sweet Pea Annual," which is edited by Messrs. H. J. Wright and C. H. Curtis, is the official organ of the National Sweet Pea Society. The hon. secretary of this society is Mr. H. J. Wright, 32, Dault Road, Wandsworth.

**Experimental Potato planting.** A report on experiments on the seeding of Potatoes in 1903 and 1904, by Professor Wright, Principal of the West of Scotland Agricultural College, lately came to hand. It relates to the planting of large, medium, and small seed, and the results are very interesting. Potatoes under four names were tested, British Queen, Langworthy, Up-to-Date, and Scottish Triumph. The greatest yield was given by large whole sets, though not enough more than that of medium whole sets to pay for the extra expense of seed. It must be explained, however, that the medium sets were larger than the ordinary seed size, the latter being described as small in the report. The medium sets in most cases yielded more than the small sets, but whether sufficiently more to be profitable or not would depend upon the prices of seed and of the crop grown respectively. In five out of seven tests, however, the proportion of ware was greater from the small than from either the large or the medium sets, and in one more case it was greater than

from the large sets. In four out of seven tests the total yield of small sets was greater than that of out Potatoes of larger size; but the proportion of ware was generally greater from out than from market size.—*Agricultural Gazette.*

**Work in gardens.**—My employer has found work in his Rose garden and pleasure grounds for some of the unemployed in this village. This is, of course, not only a great help to the gardener, but also a means of assisting the men to tide over such a time as they are now experiencing. Would it not be a kind and generous act for other employers with large gardens, who have improvements or alterations to make, to assist men now out of work.—W. R. C., *Kimbury.*

**Daffodils in the market.**—We rarely see such large quantities of good blooms so early in the season as there have been in Covent Garden Market during the past few weeks. A few years ago it was considered early if we saw the double Daffodil (*Narcissus Telamonius plenus*) the first week in February, but we had it at least a month earlier this season. Golden Spur has also been abundant. This quite eclipses the ordinary Trumpet Major (or *Telamonius*). *Princeps* has also been good. These all come from English growers. Then we have the Polyanthus *Narcissus* from France and the Scilly Islands. The Paper White and Soleil d'Or are the most abundant, but there are several other sorts, and one of the Pesticus (*Pheasant's-eye*) type is also to be seen.—H.

**Hippeastrums (*Amaryllis*) in the market.**—These are not usually regarded as useful for market, yet I find Mr. K. Drost of Richmond grows them in large quantities, and though they may not be in everyday demand, it is rarely that he has any surplus blooms, most of them being on order before they are ready to cut. The fine group which Mr. Drost staged at the meeting of the Royal Horticultural Society on the 9th ult. showed how well he grows them. They were all unnamed seedlings, yet the flowers were of fine quality and bright colour. It is they who take up something fresh and put it on the market in fine condition who assist florists to make a profit for themselves. The *Hippeastrums* are particularly suitable for decorations as now carried out. I believe it is as out blooms that Mr. Drost disposes of most of his stock, yet as pot plants they work in well for decorations. Of course, it is only for special work that they can be used, for they could never be grown to sell at the low prices which many of our choicest old flowers have now come down to.—H.

**Protecting Tree Paeonies in spring.**—These handsome plants bloom so early in the season that they rarely escape being damaged by late spring frosts and east winds; thus the real splendour of their magnificent blooms is seldom seen. Except in unusually severe seasons a brilliant display of flowers may be secured by protecting their flower-buds by means of Portugal Laurel boughs. The boughs are sharpened at the points and stuck into the ground where the Paeonies are growing, taking care to keep clear of their roots. The height of the Paeonies must be borne in mind when cutting the Laurel boughs, as these must be a little higher than the flower-buds. The boughs must not be too densely placed, but left so that the air may freely circulate through them. This protection is only given when frost is feared. The above method has been the means of preserving the Paeony flowers here from all injury during many sharp snaps of both early and late spring frosts.—J. JEFFREY, *The Gardens, St. Mary's Isle, Kirkcubright.*

**Primula kewensis.**—In a recent issue of THE GARDEN "J. Crook" asks if *P. floribunda* is one of the parents of this hybrid. It flowered at Kew for the first time as a chance hybrid. The parents were supposed to be *P. floribunda* and *P. verticillata*. This cross was made at Kew

with the idea of verifying this supposition or otherwise. The progeny were identical with *P. kewensis*. A very remarkable feature of this hybrid is that it comes true from seeds.—A. O.

**Southampton Royal Horticultural Society.**—The annual general meeting of the members will be held, by kind permission of the Mayor, at the Municipal Offices on Monday next at 4.30 p.m. The Mayor, Henry Cawte, Esq., has kindly consented to preside.—O. S. FIDGEN, *Secretary.*

**Royal Gardeners' Orphan Fund.** The annual meeting of the supporters of this fund will take place at 3 p.m. on Friday, the 9th inst., at Simpson's, Strand, W.C. The annual festival has been arranged to take place on Thursday, May 10, at the Hotel Cecil, Strand, W.C., under the presidency of J. Gurney Fowler, Esq., Treasurer of the Royal Horticultural Society.

**East Anglian Horticultural Club.**—On the whole the past year may be fairly described as a busy, interesting, and successful one, which it is hoped has still further added to the reputation of the club as a horticultural educational institution in East Anglia. Commencing the year with a total of 293, there have been enrolled 55 new members, composed of 5 honorary subscribers, 34 ordinary members, and 16 under gardeners. Against these introductions a loss has been sustained of 30 old members, occasioned by removals and other causes, thus representing a net advance of 25, and bringing the total membership to 318, composed of 25 honorary subscribers, 220 ordinary members, and 73 under gardeners. It is interesting to note that of the newly-made members 16 are amateurs, and the committee are hopeful of continuing to attract the notice of others. The falling away of the old members, however regrettable, can only be regarded as a natural result in such a large organisation, and the 10 per cent. it represents is no higher than, if so high as, that experienced in previous years. The committee wish to thank the various members for their introductions to the club, and ask them kindly to continue their recommendations and good offices in the same direction.

**Poisoning from Daffodils.**—In February last we received the following letter: "We force large quantities of Daffodils for cut flowers. The men working in this crop very frequently get their hands poisoned by the juice which flows from the base of the flower-stalk when broken or cut. To aid us in arriving at a suitable remedy for this, we should like to know what poison it is which is present in the plants." Being ourselves quite ignorant on the point, we enquired of one of our largest Daffodil-growers, who told us: "It is an old complaint, as I have observed it all the time I have grown Daffodils. Nearly all the men and women suffer more or less with bad hands at bunching-time. It is caused, I think, by their having chapped hands, on which the juice of the Daffodil acts as an irritant. But if there is no broken skin, and the hands are well washed after bunching the flowers, there is little if any poisoning." Having obtained so much information, we at once examined the matter for ourselves, and we find that the "poisoning" is purely mechanical: it is caused by small crystals of lime, technically called *raphides*, which exist in great numbers in the sap or juice of the Daffodil. It is only necessary, therefore, to keep these crystals out of the skin—to prevent them from entering, either through cuts, or the cracks caused by chapping, or under the finger-nails. We, therefore, recommend that all who are to any extent engaged in gathering Daffodils should, before beginning their work, rub their hands over well with oil, and rub a little soft tallow up under the finger-nails; and if they will always do this we do not think they will suffer to any appreciable extent.—*Journal of the Royal Horticultural Society.*

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

## YOUNG GARDENERS' OPPORTUNITIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR.—I read with interest the article on "Young Gardeners' Opportunities," by J. Gardner, on page 20. To the query, "Do young gardeners take full advantage of their opportunities?" he answers "Most emphatically no." If it is so, I think many head gardeners are at fault through giving little encouragement. Some time ago I was employed in a large establishment where exhibiting was a strong point, and I remember one show where the prize amounted to over £30; and what did the four young fellows in charge receive in the way of encouragement? Why, their railway fare. Your correspondent writes about "spending the evening at some place of amusement, when he might be studying botany, geometry, &c." J. Gardner must know that many of the best gardens are in the country, and too far away from any place of amusement, while the average young gardener could not study botany from books, unless he had a course of lessons from a proper teacher. Then, again, your correspondent writes about studying the gardening papers; now, I think all gardeners who have young men under them ought to see that their men are supplied free with at least one garden paper every week. Now, what is 6s. 6d. a year for an excellent paper like *THE GARDEN*? and I feel sure there are plenty of employers, if they were approached by the head gardener on the subject, would willingly agree with my suggestion. Your correspondent adds: "Some bothies possess good libraries." That is right, but there are many that have not a single gardening book of any kind; and I think that where there are several young men in a garden, the head ought at least to try and procure for their use that excellent work, "The Dictionary of Gardening," by G. Nicholson, the head gardener to take charge of the volumes. These might be lent to the young men for a week or month, whichever period is fixed upon. I am sure the majority of head gardeners would be amply repaid.

A YOUNG GARDENER.

## LYSOL AS A REMEDY FOR MILDEW ON ROSES.

[TO THE EDITOR OF "THE GARDEN."]

SIR.—I am writing to say how pleased I am with Lysol as a remedy for mildew on roses. Also may I take the liberty of thanking *THE GARDEN* Dr. O'Donel Bourne, Portlaoine, Nass, County Kildare, for recommending Lysol for mildew. At the time I had a plant of Climbing Niphetos Rose infested with mildew. I procured a shilling bottle of Lysol from the chemist's on the 18th ult., and treated my Rose on the 19th, using two tablespoonfuls to the gallon of lukewarm water. I syringed the Rose tree all over with the solution. The result was marvellous. In a few days the mildew disappeared without any further syringing. I might say that at the time of syringing my Rose tree had about fifty buds on, and part of them were well developed; so I cut a few of the most forward of them, but Lysol did not injure those that were left. Since syringing with Lysol, I have cut nineteen beautiful buds, and can cut ten more to-day (January 15), with lots more to follow. Lysol is the best fungicide I have ever tried for mildew on roses. I have grown roses for thirty years, and have never found anything to equal this preparation. I hope this experiment with Lysol will answer with Mr. Herbert Molyneux, who enquires about mildew on roses and its cure in *THE GARDEN* of the 13th inst. I shall be pleased

to answer any further enquiry from other gardeners, for I am sure it will be a great boon. I am just going to try Lysol on Pelargoniums for green fly.

Caisitor, Norwich.

A. PELL.

## IRIS OCHROLEUCA.

[TO THE EDITOR OF "THE GARDEN."]

SIR.—Mr. J. Henshaw, page 24 of *THE GARDEN*, questions whether the moisture of 1903 had anything to do with the free-flowering of his fine plant in 1904. It may have had an influence for good, certainly, and at the moment one is apt to attribute such exceptional and, in this species, occasional good flowering to a wrong cause. Many years ago there flowered at Kew an unusually fine specimen of this species, and this, with others I have seen, would almost cause one to form the opinion that now and again *Iris ochroleuca* makes some special effort to flower well. If the species is really more moisture-loving than is usually supposed, one may expect a more regular flowering from established plants in moist soils. But this is not a safe guide. One of the finest examples I have seen—and, though very fine, it was no match for Mr. Henshaw's specimen—grew for years in a very dry spot with little care. One season, however, it was remarkably fine, and the only conclusion I could arrive at was that the plant had more or less suddenly (apparently) developed flowering rhizomes to an exceptional extent. For several years following, however, the flowering was inferior. It would appear, therefore, that the species in question develops what one may term lateral-flowering rhizomes, at somewhat rare intervals, and, if this is so, Mr. Henshaw's fine example should throw a little more light on the subject. How has the plant behaved since its great flowering?

Hampton Hill.

E. H. JENKINS.

## THE KIEFFER PEAR.

[TO THE EDITOR OF "THE GARDEN."]

SIR.—Concerning the note by R. Lewis Castle on the Kieffer Pear in your issue of December 23, I am not surprised to learn that it is becoming evident in the British market, for New Jersey, Delaware, and Maryland are growing it in enormous quantities, to say nothing of Missouri, where growers in the Ozark region, "the land of big red Apples," say it attains much higher quality than in the East. Personally, I denounce the quality of the Kieffer every time I attempt to eat it uncooked; it is not merely inferior, but the peculiar tang of its parent, the Chinese Sand Pear, is actually offensive. To be just to it, however, I must own that this disagreeable quality disappears with cooking, and it is excellent baked, stewed, or canned (bottled). According to my experience it requires, in cooking, a syrup slightly heavier with sugar than the Bartlett (Williams?), which the American housewife regards as her favourite canning Pear. Indeed, I believe that a majority of the canned Bartletts now put up commercially are really Kieffers, for the canning trade finds that the Kieffer stands up better in the cans; the canned Kieffer retains its quality without becoming musky much longer than the Bartlett, and its flesh remains white and inviting.

But, after all, why grow it, you may ask, when there are finer varieties suitable for both dessert and cooking? The Kieffer has some robust virtues that appeal very strongly to American growers. It is almost entirely blight-proof, and astonishingly resistant to the San Jose scale. At the present time, when our horticultural papers are filled with eager discussions as to the possibilities of lime and sulphur, limoid and kerosene, caustic potash or crude petroleum sprays, and when every thoughtful orchardist sees no chance for the survival of his trees without constant spraying, there is an eager search for more resistant varieties. Then the Kieffer bears early and profusely, and does not demand

high fertility; indeed, it resents too much manure and cultivating. However, many of our orchardists frankly own that too many Kieffers have been planted and too many poor specimens marketed, for there is a wide difference between the solid golden fruit at its best and the rusty, clouded nubbins full of sandy lumps and centred by a huge hard core. The quality is greatly improved by early picking (in New Jersey about the middle of September), the fruits being slowly ripened in a cool, dark place, preferably in closed barrels or boxes. It is said that if allowed to remain on the tree to maturity the core never softens. It is also said that the fruit is not so handsome from old orchards.

Le Conte, to which your correspondent also refers, is one of the earliest hybrids of *Pyrus sinensis*. It was widely planted throughout the Southern States prior to 1870, and still comes into the New York market in great quantities in early July, before the California Bartlett. Northern Le Contes are marketed in late August, and a choicer crop in September, thinning having a very desirable effect. We are told that about twenty-five years ago blight began to affect Southern Le Conte orchards very seriously, and this variety is being replaced by Kieffer, which is less perishable in shipment. I like the quality of Le Conte much better than that of Kieffer, and I think Northern growers will find it very useful for home and near-by markets, but it must be carefully picked and properly ripened. American growers are now experimenting with crosses between these Chinese Pears and the choicer European kinds. We have tasted some of excellent quality, and if they only develop the resistant qualities of the *sinensis* type we shall feel much gratitude. But there is, apparently, no reason why British growers should plant Kieffer, Le Conte, Garber, or Smith, unless they, like us, have to endure the attacks of blight and San Jose scale, nor is there any reason why the British consumers should buy Kieffers so long as native orchards offer an adequate supply.

EMILY TAPLIN ROYLE,

Associate Editor, *Rural New-Yorker*,  
Maywood, New Jersey.

## WARDIAN CASES.

[TO THE EDITOR OF "THE GARDEN."]

SIR.—Referring to Mr. Drury's interesting article on Wardian cases and filmy ferns in *THE GARDEN* of the 13th inst., page 32, I would like to mention that I have a case in my house in which I planted some *Trichomanes radicans* nearly forty years ago, and the soil has never been renewed; but on the surface I placed miniature rocks of porous sandstone, over which the Killarney delights to creep.

Cranleigh.

F. J. HAYWARD.

## PEAR AMADOTTE.

[TO THE EDITOR OF "THE GARDEN."]

SIR.—Some years ago, when forming a collection of highly-flavoured Pears, and those notable for distinct or peculiar aroma, two trees were included of Pear Amadotte, which had been obtained from a continental garden. It was then but little known in British collections, though it had been previously grown for many years, and since that time I have never seen it, though so remarkable a variety can scarcely have disappeared entirely. The fruit is of moderate size, rarely exceeding 3 inches in diameter, somewhat rounded in form, of a delicate green tint becoming pale yellow, with occasionally a slight red flush on one side. The flesh is usually crisp, but varies, and is in some examples both melting and full of a rich sweet juice. The flavour has been compared to both aniseed and musk, and perhaps may be best described as a mixture of the two. The character of this Pear, like so many others, is greatly influenced by the stock and soil, the quality being far better on Pear stocks and in moderately heavy soils. The variety possesses



a vigorous, healthy habit of growth, and has been recommended as a stock for melting Pears. The fruit is at its best during November and December, but I have had it in fair condition to the end of January. R. L. CASTLE.

### CHRISTMAS ROSES FROM SEEDS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a recent issue of THE GARDEN it was suggested that the amateur or beginner in gardening should make a start with the above by raising the plants from seeds. I rather think the experience would prove—if not disappointing—at least a little discouraging. Not only do the seeds of the Christmas Rose (*Helleborus niger*) vegetate somewhat slowly, as well as erratically, but the after-progress of the seedlings is by no means a certainty, or even well known or understood by the average gardener. It is in those circumstances, therefore, that I think the amateur should start first with plants, and secondly with seeds of his own sowing. The beginner will have more than a passing interest in the latter, and he may like to know that such

from this that they require peat for successful cultivation. We should like to say, however, that the plants illustrated by you a few weeks ago are growing on stiff clay and rather wet soil, and we do not think that plants could thrive better. This shows that although the plants may, and do, thrive well in peaty soil, it is not essential. Sussex. THE BARNHAM NURSERIES, LTD.

## STOVE & GREENHOUSE.

### A VALUABLE WINTER-FLOWERING PLANT.

(*MOSCHOSMA RIPARIUM*.)

A BEAUTIFUL greenhouse plant, this is well worthy of extended cultivation; its requirements are few, and are such that anyone possessing a heated glass-house may grow it well. We have few more graceful winter-flowering plants suitable



*MOSCHOSMA RIPARIUM.* (A good winter-flowering plant for the greenhouse.)

seeds should be sown in June or July, almost as soon as gathered, that a shady or moist spot should be selected in the open ground, and good fresh loam added for the seeds, the latter to be thinly—very thinly—sown not more than 1 inch deep. The amateur may also like to know that the seedlings are not likely to appear earlier than nine, and some not earlier than eighteen, months from the sowing. It is best, too, if the seed-bed be covered over by slates or tiles to prevent a too rapid escape of moisture. Finally, as the most fatal thing in this instance would be "pricking off the seedlings when large enough to handle," the raiser of seedlings should be content to allow them to remain two seasons, and do the "pricking out" business in August or September as the best period of the whole year.

E JENKINS.

### SOLANUM JASMINOIDES.

[TO THE EDITOR OF "THE GARDEN."]

SIR.—We notice in THE GARDEN of the 20 h inst. Mr. Smart's letter with reference to *Solanum jasminoides*; he mentions certain plants in Somerset which are growing on peaty soil, and assumes

for house or conservatory decoration. This plant roots very easily and does not need a heated case. The one illustrated was raised from a cutting in April last. Several can be rooted in a 4 inch pot in a mixture of equal parts of leaf mould and loam, with a fair amount of coarse sand. When rooted pot off singly into 3-inch pots, and while they are in those pots harden them off for placing in an ordinary frame. About the end of May they will be ready for the final potting into 5-inch or 6-inch pots, according to their sizes, using a compost of two-thirds loam to one-third leaf soil, to which is added a sprinkling of bone-meal and some sand. Keep them still in the frame, but give plenty of air in the summer to promote sturdy growth. When the roots have taken good hold of the fresh soil pinch out the ends of the shoots, and stop the resulting shoots again when they have made four or five leaves, so as to make each plant have eight to twelve shoots. They should be allowed to remain in the frames until the middle of October, feeding

them well from September onwards. When removed from the frames place them in a cool greenhouse. If kept in a close warm house and "coddled" the sprays produced will be very weak, and instead of the plants developing into objects of more than ordinary beauty they will be poor and weak. W. H. BOUND.

Gatton Park Gardens, Reigate.

### BEGONIA AMABILIS.

THIS is the first seedling I have seen from the Gloire de Lorraine type. It was raised by Messrs. Thomas Roebford and Sons, Limited, who exhibited it at the Royal Horticultural Hall a few weeks ago. It may be mentioned that the seed parent was one of the recent sports from Gloire de Lorraine. This, which was first shown by Mr. H. B. May under the name of Masterpiece, has occurred in several places and been shown under other names. It is distinct from the type, being more vigorous, and the flowers, which are equally bright, are rather larger. The seedlings were from one seed-pod which had been fertilised with pollen from *scootiana*, which, it will be remembered, was one of the parents of Gloire de Lorraine. The most distinct feature of the seedlings is that the leaves are distinctly peltate, but not so rough as in *scootiana*, which also has peltate leaves. The basal leaves are large, but those on the flower-stems are smaller. The plants when shown were only about four months old. A remarkable feature was that very little variation was seen in a number of seedlings. It evidently possesses the free-flowering habit of its parent. It is possible, now we have a sport that has proved fertile, that further hybrids may be raised; yet it would seem difficult to get a much better thing than the original Gloire de Lorraine, which has become a universal favourite. It is now grown in almost every private garden, and we have it in the market for over six months of the year. It is grown too extensively to realise high prices; yet well-grown plants will always sell well. The white variety, Turnford Hall, does not sell quite so well in market, there being so many other good white flowers; but private growers should always associate it with the pink. Here I may mention that we are likely to have an improved form of this. Mr. H. B. May has a variety he has named Mont Blanc which as shown was decidedly a clearer white and seemed to be as great an advance on Turnford Hall as Masterpiece is on the original form of Gloire de Lorraine. There is no doubt that all the stock of this useful Begonia is better now than when it was first introduced. I should recommend all growers to be careful to select the strongest plants only for cuttings. By doing this I think we may get further vigour into this useful plant; but I do not approve of renaming every variation that is found. Unless decidedly distinct, it should be grown under the old name. Lorraine is the abbreviated market name, and though we see a good many of the variety Mrs. Leopold de Rothschild, the name is not generally recognised. A. HEMSLEY.

## THE ROSE GARDEN.

### JOTTINGS ABOUT ROSES.

ON MANNERS AND CUSTOMS.—Some time ago I received an interesting letter from a rosarian at Keith concerning the various topics touched upon in these notes. In it he remarks that "nurserymen's catalogues are very useful, but the descriptions given therein are, to say the least of it, too rosy. It is almost impossible to make a selection, certainly the bad qualities are not mentioned." While sympathising to some extent with my correspondent, I should like to point out that



there are two sides to the question. First of all, the perfect Rose has not yet been raised, and probably never will be. Every variety in my collection has some defect or other, and these defects are magnified more or less according to individual opinions and circumstances. For my own part I always look upon the Rose catalogues which our nurserymen friends despatch to us during the early autumn days as intended to set the part of missionaries, and gather into the rosarian fold those who have never recognised that the Rose is the flower of flowers.

My correspondent suggests that in "the manners and customs of Roses," the climate, weather, stock, and situation required by each variety should be given. When one comes to think it over this is rather a tall order, especially as regards the first two items. I am only too ready to admit that the weather plays a most important part in the production of good Roses, as it does in the production of all fruits of the earth; but I am afraid that if I were asked to define the perfect Rose weather I should be loth to reply before consulting my friend Mr. Mawley, who makes such a close study of meteorological conditions. Truth to tell, in the matter of weather-rosarians—like most ordinary mortals—are generally difficult to please, and so it not unfrequently happens that, when your neighbour (who dotes on Hybrid Perpetuals) tells you that the weather is suiting his plants to perfection, you are at the very same time grumbling that it is too cool for your Teas. Some varieties are extremely sensitive to wet and cold, and many of these are only kept from dropping out of cultivation because every now and then they produce a fine bloom, which creates a sensation at a Rose show. *Etoile de Lyon* and *La Boule d'Or* are two good examples, and there are others much about the same. Slight rain or even a heavy dew will often quite spoil *Edith D'Ombrain*, *Bessie Brown*, *Maman Cochet*, *Medes*, *Jean Ducher*, *Souvenir de Pierre Notting*, *L'Innocence*, *Sylph*, *Comtesse Panisse*, *Comtesse de Frigneuse*, *Alliance Franco-Russe*, *Mme. Wagram*, *Comtesse de Turenne*, *Mme. Hoste*, and others. It is best at all times to avoid such as these unless one lives in a district where the rainfall is sparse. But it is manifestly impossible to give detailed descriptions of the climate and weather required by each variety, as the nature of the soil, the lie of the land, the altitude above sea-level, and a hundred other points would have to be considered before one could arrive at a definite conclusion. Then, again, people's ideas as to what constitutes good or bad soil vary considerably. Only last summer someone wrote to tell me that he was growing "show" Roses on sand, and it was only just as I was beginning to wonder how he accomplished this feat that I found that the so-called "sand" was in reality a nice sandy loam of good depth!

*Tea and Hybrid Tea Roses in Scotland*—Until the other day I was not aware that Roses were of any use in districts where the rainfall was abnormal, yet a friend who gardens in Inverness-shire and has a large number of Roses sends me a list of varieties which do well there. All his plants are growing in almost pure peat, and 100 inches of rain per annum are registered in the district.

Here is the list giving the varieties in their order of merit: *Frau Karl Druschki*, *Mme. Abel Chatenay*, *Mme. Ravary*, *Prince de Bulgarie*, *Antoine Rivoire*, *Liberty*, *Killarney*, *Perle von Godesberg*, *G. Nabonnand*, *Mme. E. Bouillet*, *Caroline Testout*, *La Tosca*, *Lady Battersea*, *Viscountess Folkestone*, *Grand Duc Adolphe de Luxembourg*, *Lady Roberts*, *Papa Gontier*, *La France*, and *Mme. Jean Dupuy*. Altogether he grows between 700 and 800 Roses, and he tells me that "some of them do magnificently, and I have never seen such colour as we get here. I am no believer in a great number of varieties, and I will not have anything unless a continuous bloomer, a vigorous grower, and a good opener in damp weather. We never have the slightest sign of Mildew on any variety here, and I only

grow five Hybrid Perpetuals, viz., *Frau Karl Druschki*, *Marie Baumann*, *Horace Vernet*, *Louis van Houtte*, and *A. K. Williams*, and these last only because as yet we are short of reds in Hybrid Teas. *Maman Cochet*, *White Maman Cochet*, *Souvenir de Pierre Notting*, &c., are no use here—they won't open. All Chinas do well, and most of the Ramblers. I do not like the colour of *Mrs. Grant* and *Countess of Caledon*, and *Souvenir de C. Guillot* and *Souvenir de J. B. Guillot* are too weak in constitution to do well, but I miss the colour of both. Neither do I like droopers, such as *Clara Watson*, *Bessie Brown*, &c."

I have made these excerpts from this letter because I feel sure they will prove interesting to some of the many rosarians North of the Tweed who read *THE GARDEN*. Such a list cannot fail to be helpful to those who intend making a collection of Roses suitable for a moist climate, as well as act as an encouragement to those who have not yet tested some of our modern varieties under the conditions mentioned. Of course, the autumn Rose shows of the National Rose Society have afforded the Scotch growers an excellent opportunity of demonstrating the revolution which the Hybrid Tea has made in our gardens of to-day; indeed, one has only to glance through the list of varieties exhibited in the winning boxes to see that this class, as a whole, was pre-eminent at the last autumn exhibition. A friend who was present at this show told me—referring to the exhibition blooms—that among the Hybrid Teas six varieties in particular stood out before all others, viz., *Caroline Testout*, *Pharlar*, *Hélène Guillot*, *Killarney*, *Souvenir du Président Carnot*, and the new *J. B. Clark*. Several of these are quite new varieties, and it speaks well for them that they should be singled out for special praise by one who is a good judge of Roses. A. R. GOODWIN.

### DAFFODIL NOTES.

WHICH is the best label? As long ago as the year 1880 (*vide THE GARDEN*, Vol. XX., page 126), the late Mr. G. F. Wilson offered a prize for "a label which must be cheap and durable, must show legibly whatever is written or printed thereon, and must be suitable for plants in open border." No less than 150 labels were sent into the committee of judges appointed to examine the same, but despite this large number the prize was not awarded, because none was considered deserving enough. From a description of the various designs which received commendation I should rather fancy that garden labels have made but slow progress in the twenty-five years which have intervened. It is of interest, however, to note that two of the exhibitors whose labels were com-

mended were Mr. John Pinches and Mr. John Wood. I am led to make these observations by an enquiry from a correspondent who is anxious to know what is the label most generally favoured by Daffodil growers. After having seen a great many collections and taken particular notice of the labels employed in each case, I have come to the conclusion that there is nothing to excel Wood's Plant Club label. After repeatedly testing all sorts

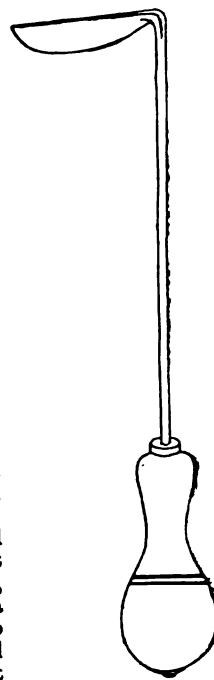
of other labels I have finally adopted it for the whole of my collection.

It is unnecessary for me to describe the label, as its shape and general appearance can be seen in the sketch. It is made of zinc, and therefore is practically imperishable, and is quite easy to write upon. The ordinary size is  $9\frac{1}{2}$  inches long, and the name plate  $2\frac{1}{2}$  inches  $\times$   $1\frac{1}{2}$  inches; the large size is 12 inches long, with the name plate 4 inches  $\times$   $1\frac{1}{2}$  inches, and there is a small size which is specially made for use in rock-gardens and pots, of which I do not know the dimensions. I find the ordinary size most suitable for Daffodils, and for a slightly extra cost it is possible to have the labels numbered with raised figures. It is my practice to rub the name plate lightly with emery paper before writing upon it. A special platinum ink is supplied with these labels, and a quill pen-nib should be used. After the labels have dried I wipe them over with a damp sponge in order to thoroughly cleanse them. The great value of these labels is in the fact that the writing lasts in good condition for a long period, and if an alteration is necessary or the ink has become faded, one has only to rub the name plate over with emery paper in order to be able to rewrite it. Probably the ideal label will never be invented, but so far this one is the nearest approach to it, and those readers of *THE GARDEN* who have not yet tried it will, I feel sure, thank me for introducing to their notice such an indispensable garden adjunct.

These labels may be obtained from Mr. J. H. Wood, whose address is Boston Spa, near Leeds. Considering their imperishable character, it will be found that the prices asked for them are distinctly moderate.

**A USEFUL TOOL.**—When at Lowdham a few years ago, during the Daffodil season, I noticed that all the beds were kept well cultivated and free from weeds by means of an excellent little hand hoe or weeder (an illustration of which appears above) that Messrs. Pearson have had made to their own design. I purchased one, and have since found it simply invaluable. It has two cutting edges, one 2 inches long, the other only  $\frac{1}{2}$  inch. For working amongst Daffodil seedlings and choice varieties, when they are already above ground, it is just the very thing, and as its cost is only 1s. 3d., I rather fancy that it will become a most popular tool when its great utility has been discovered by the general body of Daffodil growers.

**WORK AND WEATHER.**—Up to the time of writing (the early part of January) the weather has proved unusually mild, and things like *N. pallidus præcox* and *N. obvallaris* are now well above ground, and look as if they would be earlier than usual. The importance of keeping the beds well hoed all through the winter and spring cannot be too strongly insisted upon. This, I know, is apt



to be neglected amongst a press of other work, so that the top soil gets sodden and beaten down with rain, and a few dry and windy days make it set so hard that the bulbs do not get the full benefit of sun and air. Of course a hoe must necessarily be in careful hands when the bulbs are coming through in the spring, or else more harm than good will be done.

Kidderminster.

A. G.

## TREES AND SHRUBS.

### THE BUSH HONEYSUCKLES.

**B**USH HONEYSUCKLES are strangely neglected in gardens, and are seldom mentioned in the horticultural Press. There is a wonderful collection at Les Barres, as may be readily seen by consulting M. Maurice L. de Vilmorin's "Fruticetum Vilmorinum," a work full of interest to the lover of rare trees and shrubs. This may be seen in the library of the Royal Horticultural Society, or obtained post free for nine francs (7s. 6d.) from the *Revue Horticole* Office, 26, Rue Jacob, Paris. The book contains some excellent illustrations, and the descriptive notes are, of course, in French.

I have grown the beautiful *Lonicera Morrowi* for five or six years, making its acquaintance first of all at the Bath Botanic Garden, where it is one of the shrubs which annually afford a delightful display of flowers. Although it is as hardy as an Elm, there are very few nurseries which catalogue it, but I was able to procure it from Mr. Thomas Smith of Newry. I am reminded now of its value because on our light sandy soil it has grown so freely that we have lately been obliged to transplant it to a position where it will have a far better chance than it had in its original place.

Few shrubs come into leaf so early and are so unaffected by the frosts and biting winds of early spring; in fact, the hardness of its tender-looking young leafage is always a matter of considerable surprise to me, as I have never known it to be injured in any way. The flowers, which are produced in May in great profusion, are yellow and yellowish-white; they vary a little in colour, and produce a most charming effect on the plant, as they are borne in a graceful manner. A peculiar trait about this species is that it is inclined to bloom again in the autumn, and last year I had several fine sprays of it covered with flowers in September. Like its congener, *Lonicera tatarica*, *L. Morrowi* would make a pretty low hedge, and in this respect its habit of early leafing would naturally make it of similar value to the first-named. The "Kew Hand List" describes it as from Japan, and also mentions *Lonicera bella*, a hybrid between *tatarica* and *Morrowi*, which ought to be worth growing. Perhaps someone who has it will tell me whether it is of value. By the way, I well remember seeing a beautiful plant in a collection labelled *L. Alberti*, and was so struck by it that I wrote to Coombe Wood for it. The plant supplied me, however, bears no resemblance to that for which I was in search, in spite of the fact that it is true to name. The flowers of the plant I am seeking were, I believe, drooping, and deep rose or reddish in colour, while the leaves were greyish-green. Perhaps someone can suggest its correct name? I should like to know it.

A.

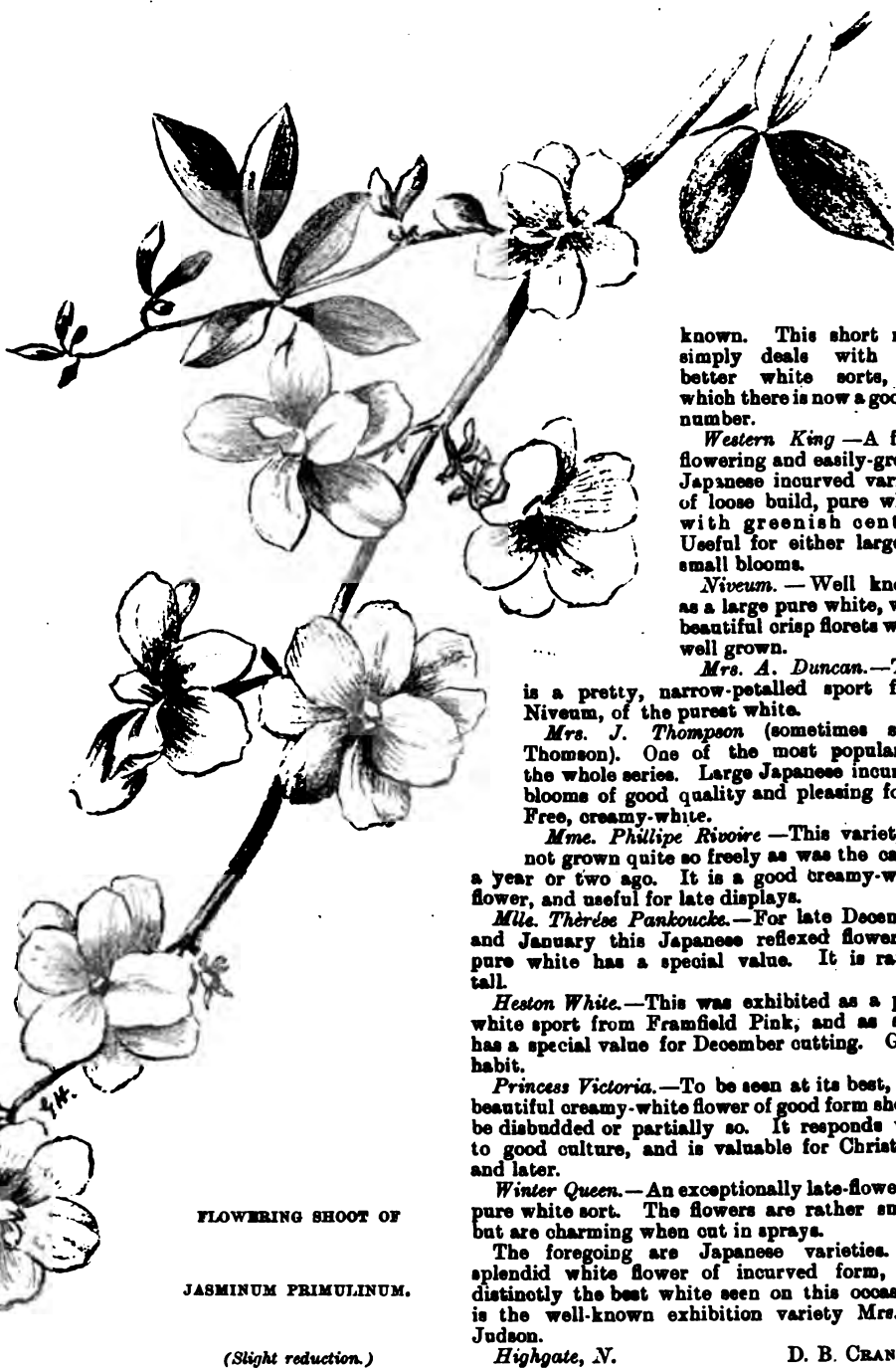
### JASMINUM PRIMULINUM.

THIS beautiful plant is now fairly well known, and has proved a considerable disappointment to many owing to its tenderness. It cannot, therefore, be trusted in the open garden without protection, and we should treat it much in the same way as that remarkable Honeysuckle, *Lonicera Hildebrandti*, which is only hardy in quite the Southern Counties. *Jasminum primulinum* has, however, one great use, and that is for flowering in a cool house under glass. Mr. Reynolds, gardener to Mr. Leopold de Rothschild, Gunnersbury House, Acton, showed a group of great beauty. The plants were over 5 feet high, and the graceful shoots were lined with the large yellow flowers, which in shape and colour remind one of those of the well-known Winter Jasmine (*Jasminum nudiflorum*). Our illustration is of one of the shoots from a plant shown by Mr. Rothschild.

## CHRYSANTHEMUMS.

### WHITE LATE DECORATIVE VARIETIES.

**O**F late years there has been considerable improvement in the character of white decorative Chrysanthemums for display throughout December and even later. The recent exhibition in Covent Garden was quite a revelation. Private growers must benefit by such an experiment, as prominence is given by these means to the more popular as well as the better sorts. Market growers—at least the more enterprising of them—have been testing the merits of many promising novelties for some years past, and in consequence quite an interesting list of good things have now to be made



FLOWERING SHOOT OF

JASMINUM PRIMULINUM.

(Slight reduction.)

known. This short note simply deals with the better white sorts, of which there is now a goodly number.

*Western King*—A free-flowering and easily-grown Japanese incurved variety of loose build, pure white with greenish centre. Useful for either large or small blooms.

*Niveum*.—Well known as a large pure white, with beautiful crisp florets when well grown.

*Mrs. A. Duncan*.—This is a pretty, narrow-petalled sport from *Niveum*, of the purest white.

*Mrs. J. Thompson* (sometimes spelt Thomson). One of the most popular of the whole series. Large Japanese incurved blooms of good quality and pleasing form. Free, creamy-white.

*Mme. Philippe Rivoire*.—This variety is not grown quite so freely as was the case a year or two ago. It is a good creamy-white flower, and useful for late displays.

*Mlle. Thérèse Pankoucke*.—For late December and January this Japanese reflexed flower of pure white has a special value. It is rather tall.

*Heston White*.—This was exhibited as a pure white sport from *Framfield Pink*; and as such has a special value for December cutting. Good habit.

*Princess Victoria*.—To be seen at its best, this beautiful creamy-white flower of good form should be disbudded or partially so. It responds well to good culture, and is valuable for Christmas and later.

*Winter Queen*.—An exceptionally late-flowering pure white sort. The flowers are rather small, but are charming when out in sprays.

The foregoing are Japanese varieties. A splendid white flower of incurved form, and distinctly the best white seen on this occasion, is the well-known exhibition variety *Mrs. F. Judson*.

Highgate, N.

D. B. CRANE.

## NEW CHRYSANTHEMUMS.

THOUGH each season we have had some beautiful introductions, especially those belonging to the Japanese section, I doubt if there has ever been a finer lot of novelties than those brought to the notice of the public during the year 1905, and most, if not all, will be distributed during the spring.

I will give a description of those only which have come under my notice, and they will, I feel sure, be of the utmost value to competitors in the future. The magnificent varieties shown by Mr. N. Davis at the National Show, the Royal Horticultural Society's meeting at Westminster, and other parts of the country, which attracted so much attention, are probably the finest set he has ever offered. This says much for his sound judgment as to what a typical Chrysanthemum should be.

## JAPANESE.

*British Empire*.—This is one of the finest Chrysanthemums of the year. Colour, orange and bronze; well-built flower, with broad florets,

*W. Gooding* (Godfrey).—Deep rosy pink; a massive flower, very clear in colour, and of great depth.

*Miss Mary Godfrey* (Godfrey).—Clear canary yellow; somewhat similar to Bessie Godfrey, but the florets are broader. Very promising.

*Mrs. Frank Pearce* (Godfrey).—Yellow-tinted cinnamon, like M. Chenon de Leche in general form. A beautiful flower.

*Mrs. R. Laxton* (Godfrey).—Deep blood red, with long, broad, flat florets. A good addition to the reds.

*Mrs. Walter Jinks* (Godfrey).—Bright reddish rose; a reflexing Japanese of pleasing colour.

*John Peed* (Peed).—White, flushed with lilac. Although not an ideal flower, this will probably be sought after for its great size.

*Joseph Rocher* (Calvat).—Reflexed Japanese, with perfectly-shaped flowers; orange, shaded with rosy red.

*Kathleen Stoop* (Jones).—A large white, with long florets; very promising.

*R. Kenyon* (Jones).—Clear yellow, shaded red. This is a refined flower and has drooping florets.

## COLOURED PLATE.

## PLATE 1291.

## NEW SWEET PEAS.

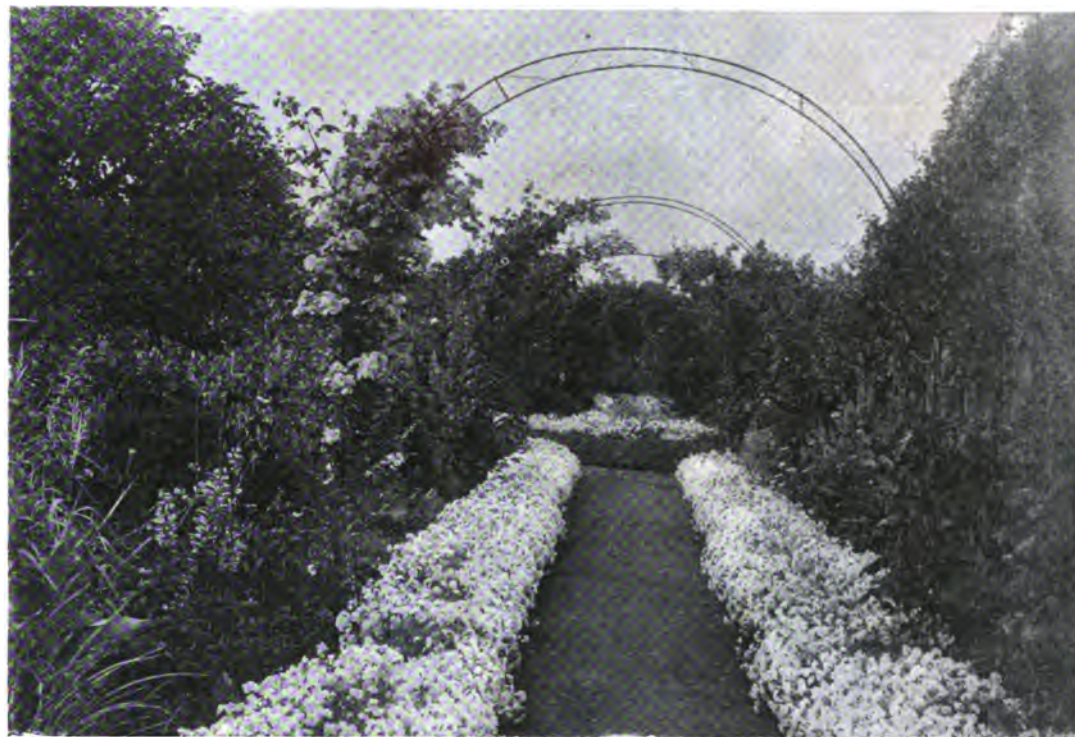
**D**URING the last decade a large number of new Sweet Peas have been introduced, nor does the annual output of novelties show any sign of decreasing; indeed, last year brought with it more new Sweet Peas than any previous year. Owing to the fact that novelties are not always real improvements, but are generally very expensive, only a small proportion of my readers will have yet tried the 1905 introductions. All true lovers of the Sweet Pea, however, will be interested to know the character of these varieties, and those who have been fortunate enough to grow them themselves will have the pleasure of comparing their experience with that of one who, in addition to growing the novelties in his own garden, has also watched them in those of others.

In the first place, it must reluctantly be admitted that, unlike 1904, when *Scarlet G-m* was distributed, and 1903, when *Dorothy Eckford* and *King Edward VII.* were distributed, 1905 brought with it no novelty so far in advance of all existing ones as were the three mentioned above. In spite of this, however, last year's introductions included several which were certainly worthy of comparison with any previously introduced, for *Bolton's Pink*, *Romolo Piazzani*, *David R. Williamson*, *Gladys Unwin*, and the various *Countess Spencer* sports are quite in the front rank of their respective sections.

*BOLTON'S PINK* is a truly magnificent variety, and will certainly become popular. It is chiefly noticeable for its enormous size, for it is one of the largest Sweet Peas grown. Its standard is very well formed, and its boldness and uprightness seem to accentuate its great size. The colour is a beautiful deep pink slightly shaded with orange, and is not unlike that of *Miss Willmott*. Like the latter also, it roaches in the sun, and exhibitors who wish to display it to perfection find it necessary to shade it. As a rule, each stem bears three flowers, but several bearing four appeared last year. *Bolton's Pink* is of strong growth, the stems in particular being very stout and long. No one will

make a mistake in adding this to his collection. It cannot be pretended that

*ROMOLO PIAZZANI* has given absolute satisfaction, but this is largely due to the fact that so much was expected of it. It certainly is an excellent variety, and although it somewhat resembles *Emily Eckford* in colour, it will be very useful in the blue section. Its early growth is weak, but when it is about a foot high it seems to become as vigorous as almost any variety. With the writer it began to bloom about the middle of June, and continued to give an abundant supply of blossoms until the middle of October, the plants by that time being 10 feet high. The flowers are generally produced three at a time on long stout stems, which last year frequently exceeded 15 inches in length. *Romolo Piazzani* is reasonable in size and in shape excellent, the standard in particular being beautifully formed. When the blossoms first open their colour is more mauve than blue, but after a few hours it develops into about the truest blue which has



PINKS AND ROSES IN A MIDLAND GARDEN.

and perfectly distinct. Will make a grand exhibition flower, either for boards or vases.

*Mrs. R. Hooper-Pearson*.—This is a charming flower, possessing great depth and good finish. Colour, pale yellow, shaded chestnut.

*Norman Davis*.—Somewhat resembles *Henry Perkins*, but is in every way superior. A brilliant red and gold. The florets are of good substance. This variety should be in the hands of all who are looking for good novelties.

*Leigh Park Wonder*.—A very large and attractive flower; a particularly dark variety, and distinct novelty.

*Sidney Penford*.—This variety somewhat resembles *Mrs. F. W. Vallis*. A large and most graceful flower; colour, terra-cotta red. A novelty of great promise.

*The Mikado* has long, narrow florets of a rich, deep crimson. A refined flower; should become a great favourite.

The above are being distributed by Mr. Norman Davis.

*Mrs. A. T. Miller* (Jones).—A pure white incurved Japanese, resembling *Miss Elsie Foulton*, but larger and finer.

*Magnificent* (Silsbury).—Velvety crimson, with very long, narrow florets. This is a choice flower, large, and of fine form.

*Mrs. J. A. Miller* (Wells).—Colour, rosy terra-cotta; florets long and loose.

## INCURVED.

*C. J. Ellis* (Jones).—Bronzy red; a large, massive flower of fine form.

*Connie Jamieson* (Davis).—A splendid flower, of fine form; colour, an attractive pink.

*Frank Trestian* (Davis).—A fine flower, with smooth florets; the form is exceptionally good, and the colour a bright amber.

*J. G. Shrimpton* (Davis).—A beautiful flower, of bright golden colour.

*Godfrey's Eclipse*.—Clear canary yellow, with broader florets than *Charles H. Curtis*.

*Elstree*.

E. BECKETT.





SWEET PEA HENRY ECKFORD.





yet been produced in the Sweet Pea. There is, however, still much room for improvement in this direction.

DAVID R. WILLIAMSON is a very good variety and has given great satisfaction. It generally bears at least three blooms on very long, stout stems. The size and shape are excellent, and its dark blue colour is among the finest shown by Sweet Peas. On first opening, the standard is bluish purple, but, like *Romolo Piazzani*, the colour soon becomes more like a true blue. The wings are a beautiful shade of blue. Although David R. Williamson is a very strong grower, it seems to be rather liable to be attacked by disease. When in its true form, however, it is equal to any in its section.

BLACK MICHAEL is certainly a new shade of maroon, but except in large collections it will never be very widely grown, for it is very unlikely to supersede *Black Knight* or *Othello*. There is less purple in it than in either of the latter, but it is not so dark and intense. The growth of *Black Michael* seems to be far less vigorous than that of most varieties. It must not be thought, however, that dwarfness in habit is a step in the wrong direction; but, in this case, dwarfness is accompanied by a shortness of stem which is to be deprecated. The shape of the flowers is excellent, and the size is fairly satisfactory, but the stems seldom bear more than two flowers. This latter fact, however, is somewhat counterbalanced by the floriferousness of the variety. Of all last year's novelties, none were advertised so widely as

GLADYS UNWIN, and none, I believe, were grown so widely. Undoubtedly it is excellent, and except for *Countess Spencer*, which in shape, size and form, it so closely resembles, it might probably have been the best pink variety of last year. The latter, however, is more beautifully coloured than *Gladys Unwin*, and for that reason must be accorded the first position in the pink section. *Gladys Unwin* is a lighter shade of pink than *Countess Spencer*, and it is rather liable to fade in colour when out.

DORA BREADMORE seems to be a fairly good variety, but it does not possess any great merit, and will never rise to any very high rank. Its shape, size, and growth are satisfactory, but its colour, pale buff, is rather nondescript.

LADY ABERDARE is another variety which will never become popular, and will probably soon be dropped, for although its colour is good, being a beautiful shade of pink, its size is insignificant. It has no chance of success in competing against *Countess Spencer*.

FLORENCE MOLYNEUX, the new rose flaked variety, when in true form, is good, but its colour seems very variable, and leaves much to be desired. It does not seem likely to supersede *Aurora*, and *Jessie Cuthbertson*.

NEW PALE BLUE SWEET PEAS—Mrs. George Higginson, Flora Norton, and Miss Philbrick—are certainly advances in colour, but are comparatively small, and will not, I imagine, be widely grown. At the same time, those who grow them will certainly find them beautiful.

MRS. H. KENDAL BARNES is a moderately sized apricot-coloured variety. It is certainly very beautiful, but is hardly up to the highest standard of exhibition Sweet Peas. For decoration, however, it is excellent.

In addition to those already mentioned, several other new varieties were distributed last year, but none of them seem to have been of sufficient merit to deserve mention here. Those I have described will satisfy most of my readers.

The novelties that are being distributed this year (1906) are more numerous even than last year. As I have had opportunities of judging the merits of many of the best of them, I will try to advise my readers which to choose. The four varieties that I shall mention first are undoubtedly improvements on any other varieties in commerce.

HENRY ECKFORD is the variety of which I wish to write first, for it may safely be said to be the novelty of the season. It is very free, vigorous, and its colour is very beautiful. Perhaps it can best be described as a deep orange salmon. There is certainly no other Sweet Pea anything like it, and it can truly be said to be a great advance. Its size and shape are also excellent. This variety has been admired wherever it has been shown, and has received the award of merit of the Royal Horticultural Society, and in 1904,

society. Its colour is rose magenta flushed with crimson.

SYBIL ECKFORD is a new decorative variety showing a mixture of pink and cream. It is very beautiful, and seems to possess every merit except size. Unfortunately it is comparatively small.

EVELYN BYATT is a handsome flower somewhat resembling *Gorgeous*, but of more brilliant colour. It is certainly one of the most showy of all Sweet Peas. Both this and the last-mentioned variety will be popular with those who do not consider size to be one of the chief points of a Sweet Pea.

PHYLLIS UNWIN is a rosy carmine form of *Gladys Unwin*, but seems to bear a very strong resemblance to *John Ingman*.

HELEN PIERCE is bright blue, mottled on a white ground. The mottlings are very evenly distributed, but are not in the form of stripes.

BEACON is a carmine and cream bi-colour of good shape and size.

MRS. HARDCASTLE SYKES is a self pink selection from *Countess Spencer*, and will probably be heard of in the future. It is too



A GARDEN OF PINKS.

Mr. Eckford, its raiser, received for it the medal which the National Sweet Pea Society gives each year for the best novelty. I think, however, that the best that can be said for it is that it, of all Sweet Peas, is most deserving to bear the honoured name that has been given to it.

QUEEN ALEXANDRA is a variety closely resembling *Scarlet Gem*, but Eckford states that it does not scorch in the sun. Those of my readers who have grown the latter variety in the South or centre of England, and who consequently know how badly it offends in this respect, will welcome this novelty.

HELEN LEWIS and JOHN INGMAN are two exceedingly beautiful varieties of the *Countess Spencer* form, and, as they are quite equal to the latter in size, they are certain to be well received. Helen Lewis was awarded the Sweet Pea Society's medal last year. The colour of the standard is a rich orange salmon, and the wings rose-shaded orange. In 1904, John Ingman received the first-class certificate of the same

soon to speak authoritatively, but it seems to be an excellent variety.

The last of the varieties being distributed this year that I shall mention is

CODSALL ROSE, a large rose-coloured variety, shading towards the centre to a much lighter colour. G. F. DRAYSON.

## BORDERS OF PINKS.

I ENCLOSE two photographs of borders of Pinks 80 yards long which you may think of sufficient interest for THE GARDEN. The borders are quite a sight in June. The background is mostly of tree Lupins; the *Saxifragas* round the central bed of Pinks are in bloom, but as the flowers are a bright yellow, the photograph gives no idea of their rich colouring.

Kegworth, Derby.

L. M. BEDFORD.

## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**P**RUNING VINES IN UNHEATED VINERIES.—This work should now be done. If it is left any longer the sap will be rising, and the Vines when cut will bleed, that is to say, there will be a considerable loss of sap through the cut portion. The portion of the Vine to be pruned is that which bore fruit last year. Next year's fruit will be produced on shoots that have still to grow. The bunches of Grapes are produced by the young green shoots, consequently the object of the grower is to have these shoots as strong as possible. To achieve this end the growths made last year, which are now hard and brown and matured, are cut back with the pruning-knife, leaving only the two lowest buds at the base of each shoot. During the spring one or both of these buds will burst into growth. Unless there are exceptional circumstances it is best to leave only one of the shoots, rubbing off the other before it has made much progress. Before doing so, however, examine them to see which one bears a bunch of Grapes; this can easily be seen when the shoot is quite young. If each shoot bears a bunch then select the one bearing the finer bunch, one is almost certain to be better than the other. If neither shoot has fruit then rub off the weaker one. In due course the shoot will develop leaves, and the bunch will become more easily recognisable. When two leaves have formed beyond the bunch the shoot should be stopped, that is to say, the point of growth should be pinched out with the thumb and finger. The object of doing this is to make the Vine develop its fruit instead of more leaves. A certain number of large healthy leaves are necessary to enable the Vine to develop its fruit, but when the Vine is grown under such artificial conditions as obtain in a glass house, where space is necessarily restricted, some of the leaves must be sacrificed. The practice of stopping the shoot two leaves beyond the bunch is found to be the best both for the Vine and for the development of its fruit. This will cause a number of side-shoots, called sub-laterals to form; these must be stopped when they have made one or two leaves, according to the space at disposal. At the next winter pruning (in January, 1907) the shoots which will bear fruit this year will of course have become hard and brown, and they in their turn will be cut back to the two lowest buds. The better of the two shoots from these will bear fruit in the summer of 1907. It is thus a question of inducing the Vine to produce strong growths and fruit one year by cutting hard back the shoots that bore fruit the previous year. It is important that the basal buds shall be as plump and well developed as possible; stopping the Vine two leaves beyond the bunch helps to ensure this. A partial cutting back of the shoots after the fruit is gathered is also recommended by some as tending still further to strengthen the basal buds.

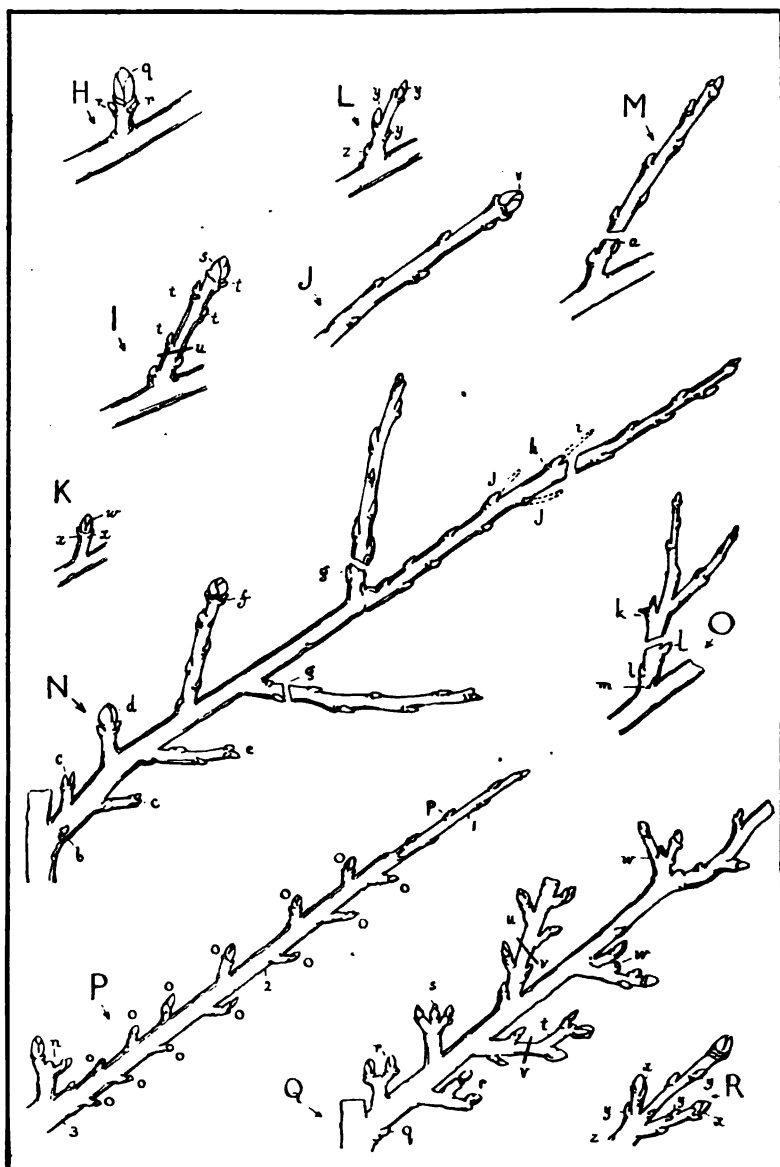
**Making Hot-beds.**—These are exceedingly useful, and, in the country, where the leaves can easily be obtained, they are economical. But to hold the leaves together in making up the beds a little fresh stable manure is desirable. Having the command of both manure and leaves, we usually use both in equal quantities, thoroughly mixed together, and leave them to ferment a few days before making up the beds. The beds should be 1 foot larger on all sides than the frames. Thus a frame 6 feet wide will require a bed 8 feet wide. The bed should be firmly built by treading the different layers as they are placed one on the other; otherwise it may settle unevenly. If built loosely, the fermentation will be rapid, and per-

haps the heat will be violent at first and cool as rapidly. A loosely-built bed encloses a good deal of air, which causes violent heat. The pressure given to the beds regulates the temperature. In a bed made fairly firm the heat is steady and lasting, but a loosely-made bed is too hot for anything for some time, and then rapidly cools. The beginner will thus see how important it is to build the bed with reasonable firmness. After the bed is finished, put on the frame, and if this is a deep one, the inside of the bed may be raised to bring the plants near the glass. For ordinary purposes at this season the bed should be 4 feet high. For Cucumbers and Melons make it a little higher. Leave a thermometer in the bed to test its temperature.

**Pruning the Apple (Winter).—Characteristic Leafless Growth.**—H, fruitful spur; q, blossom-bud from which fruit is produced; r, side buds

forming future spurs for bearing; I, short shoot terminated by a fruit-bud; s, blossom-bud; t, wood-buds likely to form spurs in following summer; u, point of pruning if desired to originate a growing shoot for furnishing the tree—this, of course, prevents bearing for some time. J, an extension growth terminated by a blossom-bud; v, fruit-bud, a peculiar mode of bearing in some varieties. K, an incipient spur; w, terminal bud, probably developing in following summer into a blossom-bud; x, side buds usually forming spurs. L, Short, stubby shoot with wood-buds; y, buds usually developing spurs in following summer; z, basal buds commonly remaining dormant, called latent. M, side shoot from a branch not pinched in summer; a, point of winter pruning, the

object being to keep growths near branches and induce spur formation. N, branch with characteristic growths; b, basal bud; c, incipient spur; d, perfected spur with blossom-bud at apex; e, short, stubby shoot usually forming spurs in following summer; f, short shoot, intermediate between a spur and growth—terminated by a fruit-bud; g, side shoots shortened to two buds; h, continuation of branch growth shortened to point desired for originating growths to furnish tree with branches for bearing or filling vacant spaces; i, continuation shoot; j, side shoots—if not so desired growth left intact. O, a pinched side shoot, winter pruned; k, bud started, and not desirable as a pruning bud; l, buds plump, and likely to form spurs in following season; m, basal bud, not usually starting into growth the next spring, but remaining latent. P, branch in very desirable state (N h, not shortened); n, a shortened side shoot, having in previous year



PRUNING THE APPLE (WINTER).

(N g) formed spurs; o, spurs; p, continuation shoot; 1=one year, 2=two year, and 3=three years' old wood. Q, three years' old wood (N as far as g); q, basal bud; r, spurs having formed blossom-buds; s, spur that fruited previous summer and side buds developed into incipient spurs; t, short shoot having formed two blossom-buds and three incipient spurs; u, shoot intermediate between a spur and a shoot which has fruited and developed two spurs with blossom-bud and three incipient spurs; v, points of shortening when desired to keep spurs near branch—this is best done after the fruit is gathered; w, shortened side shoots, having formed spurs. R, extremity of branch with fruit-buds at points; x, blossom-buds; y, growth with wood-buds usually developing into spurs the following season; z, two years' old wood; this is a common mode of bearing with some varieties, and with most when the trees are fully grown.

*Violas*.—Many do not know what to do with their old plants of *Violas* or tufted *Pansies* in the spring. During the winter they have looked very straggling and untidy, and seemed to have little good left in them. It is a pity to throw them away, however, unless you have a good stock of young ones to put out in their places, and even then it would be a pity, because the plants will flower very well indeed the second year, better sometimes, in fact, than they do the first. In the month of March cut back the long straggling growths right to the base from where the young growths are seen to be starting. The removal of all the old shoots will leave the ground comparatively clear, and allow of its being forked and manured. Well-decayed manure should be used and should be forked in. The display the old plants will make the next summer will surprise those who have been in the habit of throwing them away after the first season.

*A Shade-loving Plant* is the Japanese Anemone, one of the loveliest flowers of the garden in August and September. Plants which have become quite established produce flower stems 3 feet high, bearing a profusion of their lovely white flowers. There are varieties of pink and other shades of colour. The only way to make this plant flower well is not to disturb it. Usually the first year after planting it flowers very indifferently, or not at all. But the next and succeeding seasons it will produce an abundance of flowers. The woody root-stock dislikes being transplanted and does not readily re-establish itself. A charming companion plant to the Japanese Anemone is the scarlet *Lobelia*, which produces its spires of bright scarlet flowers at the same time. If planted among the Anemones a delightful flower association will result. The roots of this *Lobelia* should not be left in the ground throughout the winter; they should be lifted in November and placed in a box covered with soil, storing them in a frost-proof shed or room.

*Pruning Rambling Roses*.—It will soon be time to think about pruning the strong-growing rambling *Roses* that are covering poles, pergolas, arbours, &c. Those which were planted early last year or late in 1904 will need practically no pruning at all. During the summer of 1905 they made their long, strong growths that this year will bear flowers. There will be no shoots to thin out, and all that the pruner must do is to cut back the ends of the shoots so far as they appear to be soft, green, and sappy. This may be anything from a few inches to a foot. The time to prune this class of *Roses* is as soon as they have finished blooming. In young plants—planted only two or three years, say—it is not advisable to cut out all the growths which have flowered unless there are plenty of other strong ones showing at the base, otherwise there would be very few left. Those that are left will flower the next summer

upon the lateral or side shoots if these are spurred back in the spring. But that is the principle to work upon, namely, cutting out the growths which have flowered, so as to make room for and encourage younger ones which flower better. Beginners often fail to recognise the fact that climbing and rambling *Roses* flower best and chiefly upon the shoots that grew during the preceding summer; it therefore follows that, unless some good growths were made during the preceding summer, there would be none to flower. And it stands to reason that the young shoots will grow much more satisfactorily if the old ones which have flowered are removed. Even during the summer-time one must look forward to the next year. When a strong growth has flowered, and you notice another promising shoot starting from the base of the plant that will eventually take its place, cut out the old one. As previously stated, discrimination must be used. Some varieties send up strong growths from the base more freely than others do. One is obliged to retain the old growths and obtain blossoms from their side shoots with some varieties. The pruner must judge by the appearance of each individual as to how many of the old shoots he can afford to cut away, or whether he ought to cut out any at all.

*Pruning Dwarf Roses*.—We shall not now go into details as to the pruning of dwarf bush or standard *Roses*, because it is too early to think of pruning them now. What we wish to point out is that while the climbing and rambling *Roses* bear their blossoms on the growths of last year, the dwarfs and standards which are hard pruned flower on the current year's shoots—that is to say, upon the shoots which have yet to grow. This, of course, makes all the difference in their pruning. The dwarfs are cut back hard, so as to induce fresh shoots to grow and bear flowers as they develop; with the climbers the shoots must grow and mature the first year and flower the next.

*Antirrhinum for Massing*.—Where economy has to be studied and there are bare borders *Antirrhinums* in separate colours are very useful. We like the self colours best, and if the seeds have been carefully saved the whites, yellows, and crimsons come very true from seeds. If these are sown now under glass they will be ready to go out early in May, and will be in flower as soon as other tender bedding plants. We generally sow outside in sandy soil in September, and the plants raised usually pass through the winter safely. They flower continuously through the summer and autumn till frost comes. We usually cut off the seed-pods, as they check the flowering and give the mass a rather unkempt appearance.

*Lilies*.—Lily bulbs should be planted as soon as they are received; if left exposed to the air they become limp and lose a good deal of their vitality. They must not be lifted and kept in bags during the winter, like such bulbs as *Gladiolus*, which are hard, and are all the better for being stored during the winter months. Lily bulbs are best left in the soil. The surface of the ground where they are planted may be covered over with bracken, leaves, or strawy litter to keep off as much wet as possible. It is just as well to take up some of the more tender sorts and store them in pots of soil, but the majority do best if left in the ground.

*Pruning Familiar Shrubs*.—The Winter Sweet (*Chimonanthus fragrans*) is a favourite winter-flowering shrub, and there is no garden too small to have a plant of it, for it makes an ideal wall shrub. Its brown and yellow blossoms are now open, and their fragrance fills the air close by. This is one of the most charming of our winter flowers. Unless, however, its manner of blooming is considered at pruning-time, the flowers will be few. The Winter Sweet bears its

blossoms upon the growths made the previous summer. As soon as the flowers are over, the shoots that produce them must be cut hard back, so as to force the buds at the base to develop shoots that will produce flowers the following winter. The Winter Jasmine (*Jasminum nudiflorum*) also bears its flowers upon the preceding year's wood, and must also be cut back after flowering-time, to induce other shoots to form which, when developed and ripened, will burst into bloom the following winter.

## THE FRUIT GARDEN.

### PROFITABLE GOOSEBERRIES.

FOR some years we rarely had a good crop of Gooseberries. The trees were young and healthy; but grown as bushes, and with an insufficient system of protection, the birds played sad havoc. Gooseberry trees grown in bush form are difficult to protect from small birds. It is not so much loss of fruit as loss of buds, with the result that there is little fruit to lose, and the bushes after a few seasons grow ungainly. Some ten or twelve years ago we placed wire netting over the trees, the latter being trained to wires. Most of the trees have half-a-dozen leaders from the base, and grown thus they give little trouble. The trees are spurred in every season, and the leaders extended according to the room at command, and it is surprising what enormous crops have been produced yearly and from a small space. The wire and poles were paid for after the third season, and I should add the trees are remarkably healthy. There is a space of 6 feet between the rows, and manure is given annually in the winter. I am aware all may not have as suitable a spot to cover in as described here; such places as low north or east walls answer admirably, as it is an easy matter to net the trees in the winter if birds are troublesome. Last season I saw a rough wooden fence covered with trees grown as cordons; the owner told me it was the most profitable piece in the whole garden. G. W. S.

### THE DISAPPOINTING APRICOT.

WHAT a useful fruit the Apricot is! How delicious in tarts, in preserve, or for dessert, and with it all how disappointing! We get a young tree in the pink of condition from a nursery, plant it with due care against a sunny wall, and give it everything which according to experts the Apricot requires. All things go well for a time, the tree flourishes to our satisfaction, and we think that we have discovered the secret of Apricot culture. Then all at once and without any apparent reason a big branch dies away this year, another the next, and so on. As a cure some advise one thing, some another; but still Apricot branches die away, and one person after another gives up attempting to grow the fruit at all. The most tantalising part of it is that after giving up Apricots as a hopeless case one may often see a tree entirely covering a wall or front of a house with not a bare space in it. It has no particular treatment or attention, and yet it thrives and is fruitful. We say that the situation suits it, or there is something in the soil that it likes.

There can be no doubt that the Apricot is a fruit of likes and dislikes, but there are not many places where it succeeds to perfection. On the brashy soils of the Cotswold Hills in Gloucestershire I have seen some fine Apricot trees on houses and buildings, and one of the finest examples of Apricot culture on walls to be seen in the country may be found at Sherborne Park, the home of Lord Sherborne, situated in the Cotswold country. Here a high kitchen garden wall is covered from end to end with giant Apricot trees, many of which are real patriarchs. Heavy crops of magnificent fruits are



obtained, and there are few bare places caused by the dying away of branches. Now and then an old tree begins to exude gum, but the wound is promptly covered with a mixture of clay and cow manure, covered with moss, and kept moist, the result of this being that the young, fresh bark commences to grow and the wound disappears. In Oxfordshire, again, and some parts of Warwickshire, Apricots thrive well. It appears that the matter must remain a question of soil and situation, or both, for no one has yet been able to devise a remedy for the prevention of the collapse of branches and trees in places where they are prone to it. H.

### SELECTIONS OF APPLES.

Those who attended the autumn fruit show in October and were present at the first day's conference heard a selection (a very limited one) of Apples recommended. Many there desired to know the best sorts to plant for various soils and situations. When I heard the list read I could not help thinking how disappointing some of these sorts would be in some soils compared to others, and I am of the opinion that a list of, say, a dozen varieties of Apples is not suitable to all soils. The same holds good of Pears. The soil I now have to deal with is a retentive loam, often being under water from the river. The situation is low. The soil in Hants was of a light sandy nature, resting on gravel. On this Wellington, Newton Wonder, Gloria Mundi, Cellini, Lord Suffield, and several others thrive well, and there was no canker. I remember that several speakers at the conference strongly recommended Newton Wonder, and I have seen excellent fruits of it in various other places. A long list is unnecessary; what is wanted is information upon sorts that will grow in various soils and situations.

Forde Abbey Gardens, Chard. J. CROOK.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**D**ECIDUOUS trees and shrubs may now be planted in light soils if the weather permits, but if the soil is wet and cold, and the situation bleak, the operation should be left until the end of the month. Pruning should now be finished, so far as the above are concerned. Azaleas, Ghent and Mollis, should be planted now in peat-beds. Rhododendrons are the easiest of all evergreens to transplant, as by giving them a suitable soil and a little care they may be moved at almost any time of the year. The planting of most other evergreen shrubs is best deferred till the latter end of March or the first week in April. The blank spaces between the newly-planted Azaleas and Rhododendrons are ideal for *Lilium auratum* and the *lancofolium* varieties. These may be planted freely now. They are far more effective when planted in clumps than when dotted as single bulbs. With the coloration of the foliage of Azaleas in autumn they blend delightfully.

THE LAYING OF TURF for lawns, or as edgings for gravel walks, may be proceeded with. It is necessary to clear up all leaves and rubbish that may have accumulated during the winter, and continue to sweep and roll lawns and also gravel walks on all favourable occasions.

SWEET PEAS for flowering early should now be sown in pots. The wonderful improvement made in this flower within the last few years, and the ever-increasing number of varieties of improved form and colour, make it important to keep up to date by purchasing the novelties every year, discarding some of the old ones, and retaining only the best. Sweet Peas are deservedly popular—they are everybody's flower; even the

humble cottager grows them as they should be grown—in clumps of decided colours. If planted in this way, it is easy to save seeds that will be very largely true to name. The very small percentage of rogues can be removed as soon as the first flowers appear. Ten seeds may be sown in large 3-inch pots. Loam, leaf-mould, and a little sand form a suitable compost. If used in a fairly moist condition, it is advisable not to give any water till the seeds have germinated, or possibly some of them will rot. Place the pots in a temperature of about 60° till the seeds have germinated.

SEEDS OF VERBENA, sown now in pans placed in gentle heat, will make good plants for bedding out. It is important not to hurry the seedlings of this plant by excess of heat. Although seedlings cannot be relied on to give such a good effect as the best named varieties, such as *Miss Wilmott*, *Scarlet King*, and some of the best of recent introduction, still, where any difficulty is experienced in keeping a collection of named sorts, this is an easy mode of culture. Seeds are procurable from reliable sources, with a good choice of distinct colours, coming very largely true from seeds. G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**BOWING SEED OF CYPRIPEDIUM.**—Flowers of *Cypripedium* which were fertilised last season have, with few exceptions, ripened their seed. On no account should the seed-vessel be taken from the plant until it shows signs of splitting; if this takes place in the autumn or early part of the winter the seed should be collected and kept in a warm, dry place until the time of sowing. The end of January or the beginning of February is undoubtedly the best time to sow, and then, if the seed is fertile, and the conditions are favourable, the seedlings should be large enough to prick off by the end of July or the beginning of August. A very satisfactory and probably the best method of sowing is on the surface of newly-potted plants of other *Cypripedium*s. The plants should be potted so that the surface is just below the rim of the pot, for if at all mounded the seed is likely to be washed off during the application of water. After sprinkling the seed very finely over the surface of the plants it should be watered in with a fine rose and the pots placed in a light position where it is fairly warm and moist. The best time to prick the seedlings off is when the two first leaves are each about half an inch long; four of them should be placed round the side of a 2-inch pot in a compost of finely-chopped moss and peat intermixed with silver sand. They should then be given a light position where the temperature is never below 65° during the winter. *Cypripedium*s do not now take so long from the seedling to the flowering stage as they used to do. If all goes well with them they should flower in three years from the time of pricking off.

**HYBRID CYPRIPEDIUMS.**—The numerous hybrids, as they pass out of flower, should be attended to with regard to repotting and cleaning. I have previously drawn attention in this column to the advisability of repotting any *Cypripedium* insigne and its varieties that have been grown in the same compost for more than a year; this also applies to the hybrids. To obtain the best flowers one must in the first place get fine healthy foliage, and this I find is impossible unless the plants have fresh material yearly. The compost should contain rather less loam than I advised for *C. insigne*, otherwise the details are exactly the same as regards repotting, but they should be given at least 5° more heat than is necessary for *insigne*. After they have been repotted examine them carefully, and sponge the leaves before replacing them. Thrips often attack *Cypripedium*s, but, as I have pointed out before, they are easily exterminated by frequently fumigating with XL All.

**DENDROBIUMS.**—The numerous hybrids and many of the distinct species are coming into

flower. If they have been kept in a cool house during the resting period they should now be given rather more heat and moisture. None of them require much water at the roots yet; only sufficient should be given to keep the bulbs in a plump condition. *Dendrobium wardianum* has begun to make new growth, and, consequently, should be given the maximum amount of light, and be placed in a house where the temperature of 60° by night is maintained. The beautiful hybrid *D. Juno* should be kept rather drier at the root than many of the others.

**GENERAL REMARKS.**—Now that the days are lengthening the sun becomes stronger, and it will soon be necessary to shade many of the softer-growing plants, so if the blinds were taken down for the winter, they should now be fixed on the south side ready for future use. For *Cypripedium*s I find that canvas blinds are best, but for *Cattleyas*, *Dendrobiums*, *Laelias*, and *Oncidium*s I prefer lath blinds. W. H. PAGE.

Chardwar, Bourton-on-the-Water, Gloucester.

### KITCHEN GARDEN.

**GENERAL REMARKS.**—The present is a good time to rake out odd corners and places not often disturbed, where slugs are likely to be found. Give the ground a good dressing of lime, for after the recent heavy rains they will be near the surface. It is better to kill them now than to dig them in, to rise again later in the season.

**RHUBARB AND SEAKALE.**—Cover the crowns of Rhubarb and Seakale—where forced out of doors—with inverted tubs, with the bottoms removed and converted into lids, or with proper earthenware pots with lids; place around and all over a good thickness of material as recommended for hot-beds. All lights must be excluded, and a moderate even temperature must be maintained by renewing the heating material; particularly is this necessary in the case of Seakale, the quality of which is much impaired by an irregular temperature, becoming tough. Rhubarb, owing no doubt to the very mild season, is already showing signs of growth. Protect the crowns from frost with long litter or bracken.

**ASPARAGUS.**—Asparagus beds that have not already been manured should be so treated without delay, using well-decayed manure, so that the rains may wash the goodness down to the roots. I do not recommend either digging or forking the beds, but a little soil from the alleys may be spread over the manure. If the manure is not well decayed mice are apt to settle in it, when they will be sure to do considerable damage to the roots.

**HERBS.**—Mint and Tarragon may be brought on by lifting the roots and planting them in boxes. Cover the roots with good soil and place in a warm pit, where growth will soon commence. Basil, where required, should be sown in pots, placing them in a vinery that is started, or a heated pit. Make successional sowings every fortnight.

**POTATOES.**—Seed Potatoes for early planting in the open that are not showing signs of sprouting should be placed on end in a box with a layer of leaf-mould at the bottom. Put the box in a light airy place with very little extra warmth; if placed in much warmth the young growths become weak. Keep Potatoes in pots as near the glass as possible, and top-dress or earth up those requiring it, using good soil. It is better if the soil can be warmed a little before using. Where a house or pit cannot be devoted to Potatoes, avoid syringing the tops as much as possible.

**ENDIVE.**—Endive may be blanched in several ways; in the open, by tying the outer leaves tightly over the inner ones, or by placing an inverted flower-pot with the hole stopped up over the plants. A fine day when the plants are dry should be chosen for these operations. If pots are used it is a good plan to take them off for a short time every three or four days when fine, as by this means mouldiness and decay are often prevented. Where a cold pit is available,

lift some of the plants and place them in the pit, tie the leaves, and keep the pit dark. If wanted quickly, lift and place some in the Mushroom house, but the plants are apt to damp off if much heat is applied.

**SEEDS.**—Bring to the light any Cabbage, Lettuce, and Cauliflower seedlings in boxes, to prevent their becoming drawn; ventilate freely on all favourable occasions. All digging operations should be pushed on as fast as possible when the weather will allow. Here nearly all outdoor kitchen garden work has been practically suspended for some time, owing to the heavy rainfall, the ground being too wet for working upon. Up to the time of writing (January 20) we have registered 8.03 inches of rain since January 1, the rainfall for the first week being 4.4 inches, 1.72 inches the second week, and 1.90 inches the third week. J. JACQUES.

*Bryanston Gardens, Blandford.*

## FRUIT GARDEN.

**CHERRIES.**—Although perhaps not occupying so much space on the walls in some gardens as other subjects, sweet Cherries well repay the shelter afforded by a wall with a west aspect, and by careful selection of varieties the season of these can be considerably prolonged. It is advisable to have rather more young wood left on these at the summer pruning than on other fruit trees, unless the soil is specially adapted for Cherries. A number of dead branches may require to be replaced by the laying in of young wood, as sweet Cherries do not produce shoots from the old wood so freely as other fruit trees, hence the need to preserve as many young growths as will be required. Some of the finer sorts are subject to gumming, but try to avert this by keeping the roots near the surface and inducing a short, healthy growth and establishing firm natural spurs. The use of the knife then in winter is merely nominal.

**MORELLO CHERRIES.**—As these bear principally on the young wood made the previous season, the best method of training them on walls is the fan shape, making provision for nailing or tying in as much young wood as possible without undue crowding. Remove freely any branches their full length that can be spared, and encourage the free growth of the young wood from the base of the tree. The Morello succeeds well on a north aspect or as a standard, and where both methods are practised the fruit can be had in season for a long time.

**THE PEACH WALL.**—The Peach is now so seldom seen on walls in Scotland and in many parts of England that many of the younger generation of gardeners look on them as scarcely to be classed as hardy fruits, yet at one time they were found in most gardens, and the fruit was probably as fine in appearance as, and certainly finer in flavour, than that now seen in many of our glass structures. And if a fraction of the labour annually bestowed on indoor Peaches was given to the culture of Peach trees on suitable walls, the results would be surprising. They should have a place where they will have a good chance to succeed, and special preparation of the soil is necessary to ensure success. If the soil is close and damp it should be rendered porous by the addition of broken bricks and lime rubble—and as gross growth is far more difficult to deal with out of doors than under glass, none of the stimulants generally recommended for Peaches under glass should be added to outside borders—but in the case of a very poor and light soil a little well-decayed farmyard manure and bone-meal may with advantage be applied. Soot and wood-ashes in small proportions do much to render wood growth firm and fruitful, assisted when the trees get into full bearing by liquid manure and mulching. When systematic pinching and stopping are practised, the winter pruning will only consist of the removal of any semi-exhausted wood that may have been overlooked when

thinning out the wood after the fruit was gathered in the autumn. Nothing should be left on a tree which will die back, as wounds under such conditions cannot heal over. This winter pruning may adversely be left till the beginning of March; indeed, the operation must be controlled by the climate of the district. The early blossoming of the Peach is one of the chief causes of failure out of doors. It follows that if the flowering period can be delayed there is a much better chance of success, and to this end we recommend the detachment of the trees from the wall during winter and fixing them to stakes or rods 3 feet or more from the wall; this will retard the flowering period for a fortnight. The only objection to this most effective method is the excess of labour it involves, but it has its compensations in the facilities given for thoroughly cleansing the wall from all insect pests and the greater probability of securing a full crop of fruit.

THOMAS WILSON.  
*Glamis Castle Gardens, N.B.*

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

### THE GREENHOUSE.

**SOUTH AFRICAN BULB (E. M. G. K.).**—There is little, if any, doubt that the bulbous plant referred to by you is *Brunevia gigantea*, also known as *B. multiflora*. It is a difficult plant to flower, though it will throw up good leaves year after year. In its native country it flowers in February or thereabouts; in this country the flowers are produced in autumn; after this the leaves are pushed up, and the plant makes its growth, when it should have a light position and a temperature of 50° to 60°. As soon as the plant shows signs of going to rest the supply of water must be lessened, and finally discontinued. At this time a sunny frame with a free circulation of air, but with lights to keep off the rain, is just the place for them. By the end of the summer or early autumn, if the plant intends to flower, the spike will make its appearance, and when this happens the soil must be watered. A compost consisting principally of sandy loam is the most suitable. From the deep-descending nature of the stout roots these bulbs do better when planted out than in pots.

**EUCHARIS MITE (F. H. I.).**—Usually over-watering or over-potting is the cause of the deterioration of the *Eucharis*. A considerable difference of opinion exists as to whether mite is the cause of ill health, or a parasite that attacks unhealthy plants. You certainly made a great mistake in repotting the plants about a month ago. Nothing short of a radical overhauling will restore your *Eucharis* to health, and a good way to set about it is as follows: About the middle of February turn them out of their pots and shake the roots absolutely clear of the old soil, even going to the

extent of washing them in a pail of tepid water. Then, with a sharp knife, cut away all roots that show signs of decay, and any outside scales that are in a very bad state may also be removed. The compost should be prepared for potting, and taken into the stove house in order to get warmed through. A suitable compost is two parts good yellow loam to one part each of leaf-mould or peat, and one part of rough silver sand and broken charcoal mixed. Avoid over-potting; in the case of badly-rooted bulbs pots 5 inches to 6 inches in diameter will be large enough for three bulbs. After potting they should, if possible, be plunged in a gentle bottom-heat in the stove house, and shaded from the direct rays of the sun. But little water at the roots will be required at first.

**Jessie G. Walker.**—The Date Palm (*Phoenix dactylifera*) is not hardy, therefore you must give the seedlings the shelter of a warm greenhouse during the winter. The best time to transplant them is in the spring when they begin to make fresh growth.

**J. C.**—It is difficult to assign any reason for the flowers in your house behaving in the way they do, but the cause, whatever it is, must be a local one. The fact that the leaves are in good condition shows that there is nothing deleterious in the water, and after carefully weighing the matter over we think that the sulphurous fumes from the stove-hole must somehow or other find their way into the structure. The fumes are so penetrating that a tiny crack is sufficient to do the mischief. Sometimes they will work up by the side of the hot-water pipes. The whole appearance of the flowers suggests scorching by sulphur, and this, we think, is the most likely cause of the trouble. A thorough investigation on the spot is the only way to positively settle the matter.

**MONOCOTYLEDONS (A. H. R.).**—Monocotyledons are chiefly natives of the elevated regions of South America, hence the temperature of a stove is too high for them, and that will account for your want of success in their culture. They are greenhouse plants. Cuttings of the young growing shoots strike easily if inserted in the spring in well-drained pots in a sifted soil of peat and sand. This must be pressed down moderately firm, and the cuttings inserted securely therein, then give a good watering through a fine rose, and when the superabundant moisture has drained away from the foliage the pots of cuttings may be either covered with bell glasses or placed in a close propagating case where a temperature of 55° to 65° is maintained. The glasses must be regularly wiped and a little air occasionally given. For future potting the soil should consist chiefly of peat and sand, but with the addition of a little loam. It must not, however, be sifted. In the winter the most suitable temperature is a minimum of 45°, rising to 55°, or even a little more during the day.

**W. R. S.**—We fear that you will have considerable difficulty in obtaining a standard of *Datura Knightii*, for though it is sometimes met with in this form in old-fashioned gardens, we do not know of any nurseryman who grows it in this way, though young, vigorous plants 18 inches in height or thereabouts are readily obtainable from the usual sources. It is more generally known in gardens and nurseries as *Brugmansia Knightii*, and you will find it in many catalogues under that name. The treatment needed by this plant is just the same as for a *Fuchsia*, that is to say, it should be grown freely during the summer, and in winter, when nearly all the leaves fall, give little water. A minimum winter temperature of 40° is necessary, and in summer it may be put out of doors. There will be no difficulty in growing a standard yourself if you obtain a plant next spring and give it a liberal shift into a soil made up of two parts loam, one part leaf-mould, and one of well-decayed cow manure, with a little sand. Growth in this mixture will be rapid, and if the plant is well furnished with roots by July it may have another shift.

### ROSE GARDEN.

**DOROTHY PERKINS WITH DEAD WOOD (Lapford).**—It is a bad practice to carry out too literally the cutting out of all old wood found in the various types of climbing Roses. In your case the growths sent of Dorothy Perkins were soft and pithy, which accounts for their partially dying back. This Rose, like many others, yields a lot of late shoots which are practically useless for flowering the next season, so it behoves us to be careful what we cut away. Shoots two and three years old should not be removed from this Rose in a wholesale fashion, but one or two may be sacrificed if too crowded. These two and three year old rods produce a number of laterals of varying length, and in some cases quite a cluster of them together. We find it best to prune hard such laterals, leaving them from three-quarters of an inch to about 1½ inches in length. If we understand rightly that you have cut away all old shoots, you can only make the best of those retained, cutting back in March all the dead pieces to a healthy bud.

**GLOIRE DE DIJON ON WALL (Amateur).—**Yes, this excellent old Rose may be successfully grown upon a south-east wall; indeed, you could hardly select a more suitable variety. The soil should be inclined to clay, that which is known as a clayey loam being the best. We should advise you to excavate the present soil or gravel to a depth of 3 feet and a width of about 3 feet. Fill this with some good soil and manure, the latter in moderation, say, one part out of four. You should plant at once. Ask for a plant on Briar, either a short standard or a bush, and when planting out back the shoots to within 1 foot or so of the bud or graft. A beautiful pink Rose also suitable for the same position is England's Glory. It partakes largely of the good and bad qualities of Gloire de Dijon, but, like the latter, its good qualities predominate.

**Nth Place.**—You will find Mme. Alfred Carrière, creamy white, or Réve d'Or, orange, excellent Roses for this wall. If you prefer a pink Rose, Dorothy Perkins or Climbing Caroline Testout are both good.

**X. Y. Z.**—Mme. Georges Bruant, one of the hybrid Japanese Briars, resulted from crossing *Rosa rugosa* with *Sombrelli*, and partakes of the characteristics of both—almost pure white and semi-double. *R. rugosa* alba is a perfect single white; *Sombrelli* is very thin and of lemon-white shades. The result is a vigorous grower with a long bud and of truly perpetual-blooming nature.

## ORCHIDS.

**ORCHIDS FOR STOVE.**—J. G. G. asks for the names of two dozen Orchids which may be grown in a stove with other plants. The temperature of the house is from 57° to 60°. This, we suppose, is the heat at night through the winter months. The following should answer the purpose and do satisfactorily: *Acineta Humboldtii*, *Anguloclawei* and *A. Ruckeri*, *Brassia lawrenceana*, *B. maculata*, *Calanthe Masuca*, *C. veratrifolia*, *Catleya Trianae*, *C. Mendeli*, *C. Mossii*, *C. gaekelliana*, *Celogyne cristata*, *Cymbidium giganteum*, *C. lowianum*, *Cypripedium insignis*, *C. cardinale*, *C. Sedeni*, *C. villosum*, *Lycaste Skinneri*, *Oncidium incurvum*, *O. sarcodes*, *O. splendidum*, *Zygopetalum orinatum*, and *Z. Mackayi*.

**W. R. Hobbs.**—If your spikes are showing signs of decay—we presume it is not merely the outside shield that is going brown, but the actual flower-buds—the remedy is simple. Give them a position where they can get full advantage of all light and sunshine. Admit air on all favourable occasions, and be quite sure you do not give the plants more water than is needed to prevent undue shrivelling, and do not let the temperature ever fall below 50°. We should say the question of light is the most important factor towards saving your spikes.

**S. C. S.**—It all depends upon the size of pot in which your plant of *Cypripedium insignis* is growing as to whether it ought to be repotted or not. If it is already in a large pot we should not repot it, but take care to give supplies of diluted liquid manure during the growing season. Unless the roots have well filled the pot repotting is not necessary. If, however, the plant is in a small pot and well rooted, by all means repot it. The time to do this is after flowering, when new growth begins. Probably your plant is starved, as it does not flower freely, and doubtless needs a large pot. The best soil is loam and peat, two-thirds loam and one-third peat, and sphagnum moss.

## FLOWER GARDEN.

**STATICE LATIFOLIA (Hampshire Matron).**—We certainly cannot understand why your plants of *Statice latifolia* did not flower last summer, for they are as a rule very free blooming. As they are in such good condition, there is little doubt that next summer there will not be any cause for complaint. *Agapanthus*, generally speaking, flower freely. During the summer they should be in a spot fully exposed to the sun, and from the time the plants start into growth in the spring an occasional dose of liquid manure is very helpful. In the case of plants wintered in a shed there is sometimes a difficulty in dealing with them from the time the young leaves commence to push up till they can be removed to the open. If kept too long in the shed the leaves are apt to draw up weak. *Hydrangeas* should have any old and exhausted wood cut out directly the flowers are over, in order to allow of the development of young and vigorous shoots. Care must, however, be taken that this is not overdone. Full exposure to the sun during the end of the summer and in autumn is very necessary.

**VIOLETS (Mrs. Walker).**—The border likely to be required for the preparation of plants for another season may receive attention so soon as the weather will permit, breaking it down with the fork, and, if the natural soil is rather on the stiff or light side, adding a bit of heavier stuff or some leaf-soil as circumstances demand. It should be so workable at planting-time as to allow of a light treading, which has the effect of settling the soil and admitting a more rapid formation of root. We used to dibble the runners straight from the plants on such a border, but finding they were a long time making headway if the weather came hot and dry, we have resorted to the plan of putting them for a time rather thickly in a frame, shading a little until root action commenced. The very best plan if time will allow is to tie a piece of damp Moss round each runner, placing them for a time in the frame; they can then be lifted out with all the tiny roots intact, and will start away at once. A south-west border is the best site.

**GRASSES SUITABLE FOR LAWNS (T. A. S.).**—For tennis lawns the following is the best mixture we know of: *Cynosurus cristatus*, 5lb.; *Festuca duriuscula*, 3lb.; *F. ovina tenuifolia*, 2lb.; *Lolium perenne*, 20lb.; *Poa nemoralis*, 2lb.; *P. n. sempervirens*, 2lb.; *P. trivialis*, 2lb.; *Trifolium repens*, 6lb.; *T. minus*, 2lb.; and *Trisetum flavescens*, 1lb. Altogether making 45lb., and this is sufficient in ordinary cases to sow an acre of land. For cricket and football fields for *Trisetum flavescens* substitute 2lb. of *Cynosurus cristatus* and 1lb. of *Festuca duriuscula*. For land in the shade of trees substitute 2lb. of *Poa nemoralis* and the same of *P. sempervirens* for *Trisetum flavescens* and *Festuca tenuifolia*. If you wish to have the densest herbage in the shortest possible time, we would advise you to double the quantity of seed, and to cultivate the land liberally before sowing. There is no grass that we know of that will succeed well for any length of time in the dense shade of large trees. The mixture given is the best. The best means of providing a permanent and pleasant green surface in such positions is to plant Ivy.

**C. A.**—Both the *Paragonium* and *Violet* leaves enclosed are suffering from leaf-spot, a troublesome fungoid disease, while in addition the *Paragonium* seems to be covered with deposit from aphides or green fly. To check the fungus the leaves should be occasionally sprayed with a solution of liver of sulphur (potassium sulphide), 1oz. being dissolved in a quart of hot water, and then the amount made up to two and a-half gallons with cold water. The basic slag is not the cause of the trouble.

**C. T.**—If the *Violet* plants are in good health, and had borne well-developed flowers previous to the application of lime-water, we are of opinion that the malformation is the result of the lime-water being used too strong, and applied too frequently. One good watering is quite sufficient to bring the worms to the top, where they can be picked up and destroyed. On the other hand, the presence of a great number of worms in the soil for some time previously would injuriously affect the health of the plants, and possibly have something to do with the malformation.

**South Western.**—We know of no book likely to be of practical assistance to you in such matters, and you would be far better off in the hands of a good gardener, who, having viewed the spot, could give you definite advice. The only doubtful plant in your list, so far as immediate success is concerned, is the *Tamarix*, which is best when planted in a comparatively small state island. The ground would do well for wild gardening generally. Many firms could supply the requisite plants, and the earlier the planting is done the better. The proper grouping of the plants in a natural way is of great importance. The bulbous plants could not be dealt with now, but in the early autumn.

**WINTER EVERGREEN PLANT (S. T. F.).**—The most suitable plant for the purpose would be one of the mossy *Saxifragas*, such as *S. muscoides atropurpurea*, *S. hypnoides*, *S. h. elegantissima*, *S. Sternbergi*, *S. Stansfeldi*, and others. Any of these would do quite well; they are hardy, cheap, and transplant readily at almost any season of the year. The plants named produce a dense carpet-like tuft of evergreen foliage, and the single rosettes may be thickly pricked out over any given surface when the bulbs are planted. Any of the hardy plant nurseries supply the plants, and a good-sized tuft would make many small solitary examples. Some of the *Sedums* would be suitable, such as *S. hispanicum*, *S. h. glaucum*, *S. albidum*, &c. It is, perhaps, a little doubtful if any of the above would quite carpet the surface by the time the bulbs would flower, and if this is what you desire we should prefer a close-growing Moss. Any evergreen alpine would of necessity have to be pulled into quite small bits before planting, hence the difficulty.

## FRUIT GARDEN.

**APPLE BEDFORDSHIRE FOUNDLING (J. C. C.).**—This is well adapted for garden culture. The tree is of rather dwarf growth, the crop regular and certain, and the fruit large and handsome. As a cooking Apple it is first-class, and in some seasons quite fit for dessert, keeping plump and sound until March. Bedfordshire Foundling is worthy of extended cultivation, for good sound English Apples are never too plentiful after Christmas, and glutted markets in the earlier part of the season appear likely to leave us with a great scarcity in the spring.

**VARIEGATED PINK-APPLE (J. J.).**—This ornamental-foliaged variety (i.e., the best form with pendulous growth, not the other with a stiff erect habit) frequently matures its fruit in the autumn and early winter season. Every care should be taken of the crowns, for these make by far the better plants. We have known these crowns to be duplex; in one instance as many as eighteen nice young growths were taken from one fruit alone. We think, however, that this is a rare occurrence. Snakers, too, will be useful to keep up the stock. We remember some years ago seeing a beautiful lot of dwarf, well-coloured little plants that were being grown suspended from the roof in a stove. This struck us as being the best way to treat this Pine-apple whilst of medium size. Over-potting must be guarded against, only a little soil being allowed until roots are active, then a bare shift may be given. These will then as soon as established make excellent table plants.

**NON-FRUITING FIG TREES (Amateur).**—Your note fails to inform us how your Fig trees are growing—whether they are in the open or against a wall or house, and if the latter, whether close to a south or sunny wall or some other aspect. There is no hope of inducing a Fig tree to ripen its shoots so thoroughly as to produce fruit except where, outdoors, it is growing close to a warm, sunny wall, and has its shoots kept thin and well nailed to the wall, so that the wood obtains the full benefit of the sun's warmth. In a shaded or cold situation Fig trees make ample growth and fine leafage, but the wood never ripens enough to become fruitful. Generally the roots should not have too much room. It is often a good plan to dig out a trench 2 feet deep, 3 feet from the tree-stems, to prune the roots, and to refill the trench, mixing with the soil, and adding to the surface of the narrow border, wood ashes, old lime refuse, and basic slag, a pint to a barrow-load of soil.

**GOOSEBERRIES AS A FENCE (C. Hollowes).**—We have in former notes advocated the planting of Gooseberries on bare walls with a northern aspect for the supply of late fruit. Gooseberries are also valuable as a dividing screen or fence between the flower and kitchen gardens, or in other suitable positions. We have seen these trees used for the above purpose, and a profitable fence it was, giving far less trouble than any kind of evergreen fence. There are many varieties of Gooseberries that would do well trained as above. Some of the pendulous growers have done far better than when grown in bush form. What are required are strong posts from 9 feet to 12 feet apart. We have used Larch in the rough, boring a few holes through the centre or fastening galvanised wire with strong hooks or staples, placing the wires close enough to secure all the shoots. Plant the trees from 4 feet to 8 feet apart, according to variety and habit of growth, training them either fan-shaped or horizontal. Fences might more often be planted with trees of some economic value.

**G. W. Dublin.**—We are afraid you can do nothing to retard the blossoming of your Pear trees. We have heard of other instances similar to yours; in fact, all growth is exceptionally far advanced this year. Many of our own Roses have shoots 1 inch or 2 inches long. If we have cold weather soon your buds will be kept back, but if the mild weather continues we do not see what you can do to retard them. You might protect the cordons by means of canvas or tiffany, or even a double thickness of fish-netting if the buds still continue to progress. We should not

advise you to lift the trees unless you are prepared to sacrifice the year's crop; there would be no advantage gained for another season. We are afraid the only thing you can do is "to hope for the best."

### MISCELLANEOUS.

G. H. N.—The clipping in July ought not to have killed your box edging, and the fact that it did so must, we think, be owing to the plants being in poor health. On this point see answer to W. Redge in THE GARDEN for January 20, page 45. If there is any doubt as to its condition the clipping may be done at the end of May, thus giving a longer season of growth.

PLANTS FOR WARDIAN CASE (*Amateur*).—We cannot do better than refer you to our article in THE GARDEN of the 13th ult. on Wardian cases as regards planting and management, as full particulars are there given. The *Filmy Ferns* (*Todea superba*), &c., named therein can be obtained either from Messrs. H. Stanfield, Fern Nursery, Sale, near Manchester, or Messrs. Birkenhead, also of Sale. The *Todea* would require to be a small one to start with, and, if the case be very small, would be better omitted and *Trichomanes radicans* and *Hymenophyllum* only used.

P. H. J.—1. Good silvery-leaved Ivy is *Cavendishi*, or *marginata* minor as it is often called; *marginata elegantissima*; *marmorata* minor; and *Silver Queen*. 2. *Atropurpurea*, purplish leaves; *angularis*; *Emerald Green*; and *palmata*. 3. *Mahonia* will grow with a certain amount of lime rubbish in the soil; indeed, they are not very particular in this respect, but do best in a fairly good loam. Poor soil is by no means necessary to encourage leaf colour in autumn, but full sunshine plays a considerable part therein. 4. *Wistaria sinensis* will succeed under the conditions named by you. 5. We should prefer the Rosemary for the position named, but this is really a matter of individual choice.

PLANTING A WINDOW-BOX (*Amateur*).—A window-box should be made of three-quarter-inch boards, with rather stouter ends, be fully 10 inches wide over all, and from 7 inches to 8 inches deep inside. Numerous holes should be bored or burned in the bottom to admit of the escape of water. The box should be of the same length as the window-sill, but project over it 1 inch or 2 inches. To keep it level, two or three wooden wedges should be placed under it in front. Some rubble as drainage should be placed in the bottom, then coarse soil, filling up with good soil. For the spring, Wallflowers, if planted at once, would give the pleasantest perfume. In the summer have ready to plant into it, after refilling with fresh soil, some plants of *Musk* along the front, also a few plants of *Mignonette* and *Night-scented Stock*, which should be raised in small pots previously; at the back, two or three scented *Geraniums*, with a couple of *Ivy-leaved* varieties; and at each end a *Canary Creeper*, or one of these, and at the other end a scarlet *Tropaeolum*, to train round the window-frame.

NAME OF PLANT.—G. S.—*Spondylium aureum* (syn. *D. heterocarpum*).

NAME OF FRUIT.—Lieut. Colonel Horrell, Cambridge.—*Josephine* de Malines Pear.

## NOTES ON HARDY PLANTS.

### SOME EUPHORBIAS.

**A**MONG the large number of Euphorbias there are some of striking beauty. Take, for instance, the South European *E. Myrsinites*, a plant that is too much neglected in gardens.

In a sunny spot there are few plants that produce a more striking effect; it has yellow flowers and fleshy light green leaves closely arranged on prostrate stems. It may be raised from seed; in a severe winter it needs some protection. The small *E. capitulata* is hardier. In a sunny place among rocks it makes a thick, dark green turf, which in early summer bears small reddish-yellow flowers. This plant likes a chalky soil, and is best increased by division. Among the shrubby sorts, *E. polychroma*, a native of Hungary, is the most valuable. As in all others, the flowers proper are insignificant, rendering the upper involucreal leaves all the more striking. These are at their best in early spring, from April to the beginning of May, and are of such a bright yellow that the blooms of the *Deronicum*, which appear about eight days later, seem poor in colour in comparison. It is perfectly hardy, and grows from 12 inches to 16 inches high.

Of annual Euphorbias, *E. marginata* (variegata) is the most striking. Each of the upper leaves is finely variegated. This plant may be sown where it is to flower, or the seedlings may be

raised on a hot-bed. It flowers from early August until cut down by frost, and reaches a height of 18 inches to 20 inches. Among other summer flowers this Euphorbia loses its effect; it needs to be in a bed alone. It was introduced in 1867 by Haage and Schmidt, Erfurt, from North America.—*Die Gartenwelt*.

### ADONIS DAVURICA.

No flowers give the grower of hardy plants more delight than those which brave the storms and hard weather of the earliest months. It is desirable, therefore, that he should secure as many early flowers as possible, and it is one of the pleasures of gardening in these days to feel that annually some good new hardy, early blooming plant makes its appearance, or becomes so plentiful as to be within the reach of most folks who possess a garden. There is much pleasure to be derived from a plant or two of *Adonis davurica*, classed, by the way, by the authorities as *Adonis vernalis* var. *davurica*, which has the merit of being much earlier than the typical spring *Adonis*, and which sometimes comes into bloom with the Snowdrops in February. It is even earlier than *A. amurensis*, another beautiful plant worth securing by the admirers of early flowers. *A. davurica* is much like the typical *A. vernalis*, but its early flowering will probably make it even more popular when sufficiently well known. One would like to add the caution, for the benefit of those whose gardens are infested by snails, that these and slugs are fond of these *Adonises*. S. ARNOTT.

### ADONIS AMURENSIS.

DURING the mild weather at the beginning of the year this early-flowering plant was blooming freely in a sheltered part of the rock garden, while plants in the exposed beds are not much behind in opening their flowers. One of the easiest of all the *Adonises* to grow, it has rapidly grown in favour since its introduction a little over ten years ago. It delights in a sunny position planted in well-drained and light, rich soil, but it requires plenty of moisture in the growing season. Under such conditions the deep yellow flowers develop as much as 3 inches in diameter, on stems which eventually reach to a height of 18 inches to 2 feet. After the flowers are over the leaves attain a considerable size, and possess a charming elegance of their own similar to some of the species of *Davallia*. All the perennial species of *Adonis* are very much alike in habit and appearance, and the dividing line between the various members is very slight in some instances. Altogether they form a chain connecting Western Europe with Eastern Asia and Japan. At the Western end of the chain is the Pyrenean *A. pyrenaica*, with large finely-cut leaves and bright yellow flowers with broad obtuse petals. Next to this comes *A. vernalis*, which is found in various parts of Central Europe, as well as in parts of Great Britain. This is the most common species, as well as one of the best, with a dwarf habit, finely-cut leaves, and large, freely-produced flowers. After this we get the Russian *A. volgensis*, with smaller flowers and less finely-cut leaves. In Western Asia is found the Siberian form of *A. vernalis*, while at the Eastern end of the range *A. amurensis* is found in North-Eastern Asia and Japan. The latter plant is also known and sold as *A. davurica*, and is of very variable habit, many varieties being figured in Japanese works. Among these are flowers of all sizes, both single and double, as well as white, grey, and rose-coloured forms. The double form is in cultivation, and is a plant well worth growing, but the purple and rose-coloured varieties have still to be introduced into this country. Easily raised from seed sown as soon as it is ripe, or increased by means of division in late summer, the various members of this genus may be classed among the finest of our hardy spring-flowering plants. W. IRVING.

## ORCHIDS.

### CYPRIPEDIUM ARTHURIANUM.

**T**HIS beautiful and well-known hybrid was obtained by crossing *C. insignis* with *C. fairieanum*, and although there are many hybrids obtained from *fairieanum*, some of them in the first rank of *Cypripedium* hybrids, none, perhaps, can claim the one great point that this possesses, namely, that of being a very free grower, even when treated in precisely the same way as *C. insignis*. It blooms very freely during November and December, and the flowers last a long time either on the plants or when cut for room decoration. All growers of *Cypripediums* should include this hybrid in their collection. Even amateurs will find it as easy to manage as the common *C. insignis*.

Without doubt in the near future we shall have many more varieties of this hybrid now that *C. fairieanum* is once more found in most collections. With such insignes as *Sanders*, *sanderianum*, *Harefield Hall*, and *The Queen* varieties of *arthurianum* will be as numerous and beautiful as the well-known and largely-grown forms of *C. x lecanum*.

Gatton Park Gardens.

W. P. BOUND.

## OBITUARY.

### ERNEST FIERENS.

We regret to hear of the death of M. Ernest Fierens, for many years secretary of the Royal



THE LATE ERNEST FIERENS.

Agricultural and Botanical Society of Ghent. All those who have visited the famous quinquennial shows of the Ghent Society will remember M. Fierens, who was for years a prominent figure at those remarkable horticultural gatherings. His familiar face will be missed at the next great show in 1908, the arrangements for which M. Fierens was discussing at the recent Paris Chrysanthemum Show. With the death of M. Fierens there has passed away one of the Continental horticulturists best known to English gardeners.



## SIR JAMES MILLER, BART.

GENERAL regret is felt by horticulturists in Scotland at the death of Sir James Miller, Bart., of Manderston, Duns, which took place on January 22. Sir James, who was only forty-one years of age, took much interest in all country affairs, and since his succession to the estates in 1887 he had done much to improve them. As an enthusiastic lover of flowers, he devoted much time and spent much money on the gardens and grounds at Manderston. The Orchid collection there is one of the best in the North. The grounds were also remodelled around the new mansion, which was occupied last summer for the first time. Sir James had been a vice-president of the Royal Caledonian Horticultural Society. His love for gardening was shown in other ways than by the culture of plants at Manderston, for some years ago he laid out a park for the town of Duns.

## HENRY HERBERT.

WE regret to hear of the death of Mr. Henry Herbert, Superintendent of the Liverpool Parks and Gardens for the last ten years, and since 1877 Superintendent of Sefton Park. Mr. Herbert was a native of Cirencester, and previous to his appointment under the Corporation of Liverpool was manager of King's Acre Nurseries, Hereford. He was sixty-three years of age, and died after a prolonged illness at his residence in Sefton Park on the 21st ult. The heads of the various parks, &c., and many of the leading horticulturists in the neighbourhood were present at the funeral on the 26th ult. The deceased leaves a widow, two daughters, and two sons.

## THE LATE MR. O. T. HEMSLEY.

THE funeral of Mr. O. T. Hemsley, Superintendent of the Government Gardens, Lahore, who died at the Mayo Hospital in the early morning of a recent Saturday, took place the same afternoon. It was a military one, Mr. Hemsley having belonged to the Punjab Light Horse, of which he was quartermaster-sergeant. The corps paid a worthy tribute to a devoted volunteer. The commanding officer, Lieut.-Colonel Grey, the Adjutant, Captain Cheyne, Major Pease, and Lieutenant Percy Brown attended, and Major Robertson, private secretary to His Honour the Lieut. Governor, and Captain Wright, of the 1st Punjab Volunteer Rifles, were also present. The charger of the deceased was led behind the remains, and the police band supplied the solemn music for the procession to the grave. The Rev. K. G. Foster conducted the service, and the firing party consisted of Light Horsemen. Sir Charles and Lady Rivaz sent a wreath and cross, and similar floral offerings were brought by Colonel Grey, Major Robertson, Captain Cheyne, and many others, including Mr. A. Pinto, the acting superintendent, and the native staff of the gardens. The company included numerous acquaintances, who regretted the loss of their good-hearted young friend of bright, sunny disposition. Mr. Hemsley, who was only twenty-eight, leaves a widow and infant daughter. He was a son of the skilled English botanist who is keeper of the herbarium at Kew.—*The Civil and Military Gazette, Lahore.*

[So many letters have reached Mr. and Mrs. Hemsley that they are unable to reply to them all. They wish to offer through THE GARDEN their grateful thanks to all who have written expressing their sympathy.—ED.]

**Cypripedium sylhetense giganteum.**—We see that "Argutus," in his admirable report of the *Cypripedium* at Chardwar in a recent issue of THE GARDEN, mentions that Mr. Moore holds all the stock of *sylhetense giganteum*. May we ask you to correct this unintentional mistake. The plant which gained honours for Mr. Moore at London and Manchester was bought from us some time ago. As you will see from Mr. Moore's letter enclosed herewith, we

still have several plants of this fine Orchid in our collection, the result of several divisions from the originally-imported piece.—HEATH AND SONS, Royal Exotic Nurseries, Cheltenham.

## SOCIETIES.

## REDHILL AND REIGATE GARDENERS' ASSOCIATION, &amp;c.

THE fortnightly meeting was held on Tuesday, the 16th ult., Mr. W. P. Bound in the chair. A paper on "The Cultivation of the Vine," written by Mr. C. E. Salter, was read in his absence by his father, Mr. C. I. Salter, Woodhatch Lodge, Reigate. The lecturer dealt in a most comprehensive way with everything connected with the subject. Propagation, pruning, ventilation, and the formation of the vine border were all thoroughly explained. A capital discussion followed, in which several members took part, there being a capital attendance on this occasion. Altogether the meeting proved a most interesting and instructive one. On the motion of Mr. Bound a hearty vote of thanks was given to Mr. Salter.

## WOOLTON CHRYSANTHEMUM SOCIETY.

THE seventh annual meeting was held at the Mechanics Institute on the 25th ult., Mr. Thomas Carling presiding. The report gave evidence of a successful year's work. The finances showed a slight loss on the year's working, but the balance in the bank is still over £30 to the credit of the society. The treasurer (Mr. Neil Gossage), assistant treasurer (Mr. R. G. Waterman), and the secretary (Mr. W. D. Skluner), were re-elected, and thanks were accorded them for their past services. The sum of £3 10s. was presented to the Gardeners' Royal Benevolent Institution.

## CROYDON GARDENERS' SOCIETY.

THIS society opened their new session with a paper on "Primulas." A fairly good company of members assembled to meet Mr. G. Gumbrell, The Lodge Gardens, Wimbury, Herts, whose able treatise on the subject was rightly described as pithy and practical in all details. His remarks were principally about the *Sinensis* varieties. The soil recommended is one part loam, one part leaf-mould, one part old spent Mushroom bed or prepared horse manure, well dried, and one part coarse silver sand, mixed well together and passed through a sieve, afterwards sterilising it to destroy any insect life found therein. The double varieties are best propagated from cuttings and treated in similar way to the seedlings. The newer hybrids of *Stellata* he recommended as good plants for decorative purposes. A good discussion by the members followed, and a very hearty vote of thanks to Mr. Gumbrell was passed by the meeting.

Messrs. J. Peed and Son, The Nurseries, Streatham, exhibited a grand collection of Alpines, Cacti, and Lachenalias; and from the gardens of the president, Mr. J. J. Reid, Coombe Lodge, Croydon, came three good types of white Primulas, the latter being in competition for certificates, which the society are offering this year.

## SCOTTISH HORTICULTURAL SOCIETIES.

**KIRKBRAN AND DISTRICT.**—The annual meeting of this society was held in the Jubilee Hall, Carsethorn, Scotland, on January 13th. Mr. R. Hunter, Woodside, president, in the chair. Mr. W. Douglas, one of the hon. secretaries, submitted the report for the past year, which was generally of a gratifying character, any falling off in some sections being more than compensated for by an increase in others. Mr. J. Gibson, the treasurer, also submitted his report, which showed a falling off in the subscriptions, but an increase in the drawings at the door, which would have been much greater but for the wet afternoon on the show day. The reports were adopted and the officials thanked. The following office-bearers were appointed for 1906: President, Mr. R. Hunter, Woodside; vice-presidents, Messrs. James Weir and James Dickson; secretaries, Messrs. W. D. Douglas and Joseph Harris; treasurer, Mr. J. Gibson, Victoria Lodge, Carsethorn.

**DUNDEE HORTICULTURAL ASSOCIATION.**—This association held a successful social evening on the 19th ult. More than 100 persons sat down to supper under the presidency of Mr. William Grant, Fernhall Gardens, the president of the Horticultural Association. The guests of the evening were the former president, Mr. R. Cairns, Balruddery Gardens, and Mr. James Bethel, Glencarne, who for some years made a most efficient and able secretary when at Newport. A long toast list was gone through, among the most enthusiastically received toasts being those of the association and the guests of the evening.

## EAST ANGLIAN HORTICULTURAL CLUB.

AT the Shirehall Hotel, Norwich, over eighty members of this prosperous club assembled at the sixteenth annual dinner. Mr. J. Powley presided, and among those present were Messrs. George Davison, J. Clayton, T. B. Field, J. Heaton, R. E. Nails, J. F. Betts, C. Marr and W. Jarman (of Hobbies, Limited), F. Piper, J. Forder, J. E. T. Pollard, W. Smith, C. Daniels, and many other prominent local professional and amateur gardeners. After the loyal and patriotic toasts had been duly honoured, Mr. J. E. T. Pollard gave the toast "Success to the East Anglian Horticultural Club." He was glad to note its progress, and while secretary of the Norfolk and Norwich Horticultural Society was able to note much of the good work done by the club. Mr. J. Powley responded, and gave an outline of the formation of the club and its subsequent rise. Mr. T. B. Field (vice-president) also

replied, and said he was not ashamed to say that whenever he attended the meetings he learnt something to his advantage. Wherever such a club existed it behaved young men to join it.

Mr. W. L. Wallis (the secretary) responded also, and said he was pleased to note that the club now had a membership of 318, and a credit balance of £120 19s. 9d. Many benevolent grants had been made to its members during the existence of the club. He was glad to announce that a most comprehensive syllabus had been prepared for 1906.

Mr. C. Daniels gave "Success to the Norfolk and Norwich Horticultural Society," and in so doing congratulated that society upon the three exhibitions held during the year, which had brought together exhibits equal to any seen in any part of the country. Mr. W. Smith (the hon. secretary) replied.

Mr. George Davison proposed "Success to the Botanical Section," to which Mr. E. Peake responded.

Mr. H. Perry gave "The Horticultural Trade of Norfolk," which was responded to by Mr. J. Clayton.

## TRADE NOTES.

## WEBB AND SONS' SEEDS.

THE catalogue of some 150 pages published by Messrs. Webb and Sons, Wordley, Stourbridge, is well worth perusal by all who have a garden. It is beautifully illustrated, and contains full lists of vegetable and flower seeds. Messrs. Webb have raised many excellent sorts of vegetables and flowers, and these, together with other standard varieties, are fully described, while many are illustrated.

## BARR AND SONS' SEED CATALOGUE.

THE catalogue of seeds issued by Messrs. Barr and Sons, King Street, Covent Garden, in addition to the extensive lists of seeds, contains a good deal of other useful information, as, for instance, "Notes on Raising Flower Seeds," on p. 52. There is a list of flower seed novelties and specialities for 1906, including seeds of many rare alpine, hardy perennials, and greenhouse plants. The catalogue is well illustrated, and arranged alphabetically to facilitate ready reference.

## BAKER'S SEED LIST AND GARDENERS' DIARY.

THE list published by Messrs. Baker, Wolverhampton, is complete enough to satisfy the most fastidious-minded gardener, who may find therein particulars of all the favourite garden flowers. Baker's Gardeners' Diary will be found most useful for making notes and memoranda. It is of a convenient size for the pocket, and fitted with a self-opening tablet.

## FISH MANURE.

ACCORDING to analytical experts, fish manure contains the highest amount of plant food of any known manure, and it should be sufficient guarantee of its high value that out of 253 classes of Grapes and fruit exhibited at the Edinburgh Horticultural Show in August last the highest award was given to Grapes and fruit treated with fish manure. Those to whom the garden is a means of profit know well the old adage which says "Feed your land and it will feed you," but with amateurs this is a point which they often overlook. The chief cause of unsuccessful gardening is usually poor soil. It is on such soil that the effect of fish manure is most pronounced, and this can be proved by the following experiment: Take two plants or bulbs of the same class and about equal size, and plant them about 9 feet apart, and dress one of them with the manure, and the result will be a larger number of blooms on the manured plant, besides a distinct improvement in the colour, size, and quality of the blooms. Full particulars may be had from the Humber Fishing and Fish Manure Company, Winchester House, High Street, Hull.

## CATALOGUES RECEIVED.

**Seeds.**—William Conway and Sons, Limited, 16 and 18, Bull Green, Halifax; F. A. Boscoe, The Golden Orchard, Steeple Morden, Royston; Villmorin, Andrieux et Cie, Paris; Tom Kershaw, Bleak House Nurseries, Cross Roads, Kelghley; E. W. King and Co., Coggeshall, Essex; G. Cooling and Sons, Bath; F. C. Pomeroy, Altona, Hamburg; Austin and McAslan, Glasgow; John Charlton, 25 and 27, Pantiles, Tunbridge Wells; Hogg and Robertson, 22, Mary Street, Dublin; W. H. Sinclair, 154A, Union Street, Aberdeen; John Jefferies and Son, Cirencester; Villa Thuret, Antibes, Alpes Maritimes, France; Cunningham and Wylie, 98, Mitchell Street, Glasgow; James Cocker and Sons, 130, Union Street, Aberdeen; W. Smith and Son, Seed Warehouses, Aberdeen.

## GARDENING APPOINTMENTS.

MR. A. MORRELL, for the past six years foreman at Lilley Brook, Charlton Kings, Cheltenham, succeeds Mr. May as head gardener at the same place. Mr. May has taken over a market garden business at Kingsville, Tewkesbury Road, Cheltenham.

MR. A. J. ELGAR has been appointed head gardener to Sir Thomas Brooke-Hitching, St. Lawrence Hall, Ventnor, Isle of Wight.

**ERRATUM.**—In the Kitchen Garden calendar for the 20th ult., in the note about Mushroom, it reads: "The bed should not be less than 1 foot in depth, with a rise towards the back of 1½ inches, and I believe, &c." It should read "with a rise towards the back of about 1½ inches to 1 foot of width, &c."

\*. The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 9d.

# THE GARDEN.

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FEBRUARY 10, 1906.

## THE KEW ROCK GARDEN.

THE following notes from so distinguished an authority as the late director of Kew will, we feel sure, be read with interest and profit by our readers :

The illustration shown on the next page gives a charming representation of a characteristic piece of the Kew rock garden. I yield to the Editor's wish that I should make it the text for a few notes, which will serve as a sort of farewell to what has been almost a daily source of interest and pleasure to me for nearly a quarter of a century.

My delight in the flora of the Alps made me an eager convert to Sir Joseph Hooker's long-cherished desire to equip Kew with some sort of rock garden not unworthy of a national establishment ; but the opportunity seemed remote till, on the untimely death of my friend Mr. George Curling Joad in 1882, his fine collection of herbaceous plants was offered to Kew by his executors. An application to the Treasury procured a grant of £500 to make proper provision for its reception.

The scheming-out of the whole thing was practically left in my hands. Now I had always felt that a rock garden, however desirable in itself, blends with difficulty with garden surroundings of the ordinary English type. There is the risk of producing the impression of something uncouth and obtrusive—at the worst, even cockneyfied. This would have been particularly objectionable at Kew, where effects must be suave and ample. But I think we avoided it, and in so doing secured another condition of success. It was necessary that the new rock garden should be easily accessible and not hidden away. It was also necessary that it should be contiguous to the herbaceous department, to which its management would be attached. The method of construction decided on exposed nothing which would not blend readily with the larger surroundings, while it secured in the rock garden itself a certain aloofness which is, I think, indispensable to the enjoyment of the kind of plants which it was intended to cultivate in it.

A rock garden is an avowed attempt to imitate natural conditions, and in this it is not easy to succeed unless some sort of plan is borrowed from Nature itself. The piece of ground available was long and narrow and as level as a bowling-green. At first sight the attempt to deal with it in a way which would even be tolerable seemed far from promising. The sort of narrow valley which I had come across in the Pyrenees, however, suggested itself as a model, and on this idea I proceeded to work.

Such a valley is a torrent in winter and dry in summer. The stream brings down

and scatters along its course rock-fragments and the roots and *débris* of trees. Thus their presence is accounted for. Amongst these in summer a copious herbaceous growth springs up.

The limited grant from the Treasury made it necessary to proceed in a very economical way. Moving earth from any distance and in any quantity is an expensive business. I had to content myself, therefore, with excavating the bottom of my valley and throwing up the soil so as to get some height for the sides. The broad gravel path represents the bed of the stream. It does this very artificially, it is true, and in a private garden it might have been replaced by rocks and an irregular broken path with a more convincing effect. But in a public establishment the convenience of visitors, often in crowds, has to be provided for.

The valley runs roughly north and south. But it winds so as to give a series of effects and, what is more important, a great variety of different degrees of exposure to the sun. Such plants as *Ramondia*, *Haberlea*, and the Himalayan species of *Meconopsis* are intolerant of direct sunlight. The total length is 514 feet.

As it has no natural outlet, it is liable to be flooded by rain-storms. Catch-pits had therefore to be made, which discharge into the main drain of the Gardens, and so ultimately into the Thames.

The soil of Kew is very light, and readily burns in summer, a state of things repugnant to most alpine plants. Sinking the valley brought it nearer to the permanent water-level in the soil and so provided incidentally a cooler bottom.

The rocks and stones used are, it must be confessed, of a rather mixed kind. Nothing better could be done with the money available. The materials of an old abandoned rockery in the arboretum, the previous history of which is unknown, were used, and as these were largely the fragments of some building, there was a little trouble in concealing the fact. The late Colonel Jones of Clifton, who took much interest in the undertaking, secured for us some finely-weathered oolite from Bath. This was rather expensive, and could only be used sparingly. The north end was finished off with water-worn mountain limestone—and I confess it with some prick of conscience—from the Cheddar cliffs. In after years a few weak places have been improved by the use of weathered oolite from a quarry belonging to Lord Redesdale. The same material has also been used with good effect for the rock pools in the Himalayan house.

Tree roots have been used freely in places. I believe that this is regarded as a *fad* of mine, and does not usually meet with favour. It is true they decay and harbour the

associates of their dissolution, but the bolder and more striking kinds of herbaceous plants seem to revel in the process.

Minor features need not be dwelt upon, as they are familiar enough to our visitors. To avoid monotony the sides of the valley were scooped out into bays. Some of these are occupied by hogs, as to the construction of which a word may be said. A bog owes its existence to an impervious bottom, which keeps the soil above it saturated. Stagnant water will, however, kill the roots of any plant which reach it. The scientific method is therefore to make a puddled clay bottom and to drain this by a hole filled with brick rubbish. In a bog so constructed *Osmunda regalis* grows with luxuriance.

A few hints, the result of practical experience, may be given as to the detailed construction. A rock garden is not the result of a mere craze for the picturesque. It is a necessity for the cultivation of many plants. This arises from their having far-extending roots, often out of all proportion to their growth above ground. The rock fragments used should not be scattered on the surface, but plunged some distance into the soil, and wedged together so as to form pockets. The portions above ground should serve as shelters against which the plants can nestle. The roots strike into any crevice and follow the surface of the rocks, from which they imbibe the moisture which the rocks serve to store. It follows that good soil for their food should not be on the surface but where they can find it. In constructing the Kew rockery all the old turf and the "top spit" removed were thrown well behind, and the stones and rocks were then built up above.

With all the science in the world it must, however, be frankly confessed that in the hot, dry summer climate of Kew a rock garden is something of a *tour de force*, and that many plants fail to display such vigour, or even thrive at all as they do under cooler conditions in the Edinburgh Botanic Garden. To mitigate this the Kew rock garden was well supplied with hydrants, so that it could, if necessary, be copiously sprayed both morning and evening. The water was also used to supply a small lateral streamlet. That some measure of success was attained is shown by the fact that *Cystopteris fragilis* has become a positive weed. The successful management of a rock garden demands patience. It is always a battle, and dismay at apparent failure will never attain success. The secret is to study persistently the needs of each plant, and to try to find the precise spot that satisfies them. *Oxalis enneaphylla*, brought from the Falklands by the late Professor Moseley during the Challenger Expedition, merely lingered for years till a corner was found, where I was quite happy.

At first I was a little disappointed with the growth of the plants. I learnt the cause on a visit to the late Mr. Enoch Harvey at Liverpool. I had made the surface of our pockets horizontal. The result was that we lost many plants by damping off in winter. Mr. Harvey pointed out to me that the surface should be inclined about 15°. I adopted this plan at Kew, and we have had little further trouble. It may be added that if a pocket is saucer like it is necessary to cut a notch in the rim for drainage. The reason is obvious. In the Alps plants are kept dry under snow in the winter. They are intolerant of damp at the surface, and are peculiarly liable to rot off at the collar. Many, such as *Ramondia* and some *Saxifragas*, indeed, succeed best when grown vertically.

A large number of alpine plants cannot be grown in a rock garden, at any rate at Kew, and will only succeed in pots. Of these we have a large collection, and it is necessary to give

foreman of the herbaceous department at the time. Of his successor, Mr. Irving, I can only say that the present condition of his charge tells its own story of a labour of love.

Kew. W. T. THISELTON-DYER.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

February 13.—Royal Horticultural Society's Annual Meeting 3 p.m., Meeting of Committees 12 noon; Horticultural Club, Annual Meeting 5 p.m., Annual Dinner 6 p.m., Hotel Windsor.

February 14.—East Anglian Horticultural Club Meeting.

**The Fruiterers' Company.**—The Lord Mayor, who was accompanied by Mr. Alderman and Sheriff Smallman and Mr. Sheriff Bowater, C.C., shared with the Hon. Alban Gibbs, M.P., the honour of being the guests of the evening recently at a dinner given by the Fruiterers' Company at De Keyser's Hotel. The

lection will be specimen tubers of many original wild species and types, some of which, so far as they are aware, have never before been exhibited in this country.

**Gardeners' Royal Benevolent Institution.**—Lord Balfour of Burleigh (president of the Royal Caledonian Horticultural Society, Edinburgh, and member of the council of the Royal Horticultural Society) will preside at the Sixty-seventh Anniversary Festival Dinner in aid of the funds at the Hôtel Métropole on Wednesday, June 13.

**The Kent and Sussex Daffodil Society** will hold its first annual show in the Great Hall, Tanbridge Wells, on Friday, April 20. Mr. F. Herbert Chapman, Guldeford Lodge, Rye, is the hon. secretary. We hope the show will be a great success.

**Tea Roses in Scotland.**—I can fully agree with all that your correspondent (page 69) of the 3rd inst. has to say about Tea Roses doing well in Inverness-shire. In the late seventies I had under my charge a garden in far Lochaber, where the soil was composed of peat and sand. The rainfall, needless to say, was abnormally heavy. I have vivid recollections of its falling for six weeks at a time without a single break; but, notwithstanding this fact, the finest *Gloire de Dijon* Rose hedge I have ever seen formed the background to a border over 100 yards long on one side of the flower garden. From the beginning of August to late in October large basketfuls were gathered every morning, while the blooms for size and quality would have graced any show board. In my experience mildew was unknown among Roses in Lochaber. To my regret I cannot say the same for the South of Scotland. Last season here all our best Teas, Hybrid Teas, and Hybrid Perpetuals suffered severely from this disease.—J. JEFFREY, *The Gardens, St. Mary's Isle, Kirkcudbright.*

**An easily-grown Orchid.**—Some years ago I had a number of plants of *Cœlogyne cristata* sent to me. I divided them among my friends, and still had some left. I placed these in a flower-pot, loose, with no soil, standing the pot upon another inverted which was in a tank with a little water at the bottom. The tank was in an unheated dismantled greenhouse, and the Orchid was forgotten for more than a year. When the greenhouse was being removed I discovered the plants had passed through a very severe winter in which *Geraniums*, *Fuchsias*, &c., were killed. The tank was quite dry, and instead of the original bulbs—perhaps twenty of normal size—there was an immense number of very small pseudo-bulbs, many not larger than split lentils, hard, glossy bright green, like green glass beads. They certainly had not been killed by the cold, and no doubt with care would have developed into flowering plants. I wonder if anyone else has had a similar experience?—W. T. BASHFORD, *Portobello, N.B.*

**Primula obconica.**—To one whose knowledge of this *Primula* goes back to the time when it was known as *Primula poculiformis*, the great advance that has since then taken place in it is most marked, the flowers and trusses being larger and the colours considerably more varied. It is more elegant than several of the varieties of *P. sinensis*; its chief drawback lies in the hairy glands of the leaves, which set up a severe skin irritation on the hands of some persons. This *Primula* is a plant for the greenhouse, where it will flower more or less continuously throughout the year if the old flowers are kept picked off. Though strictly perennial in character, it, like the Himalayan *P. floribunda*, is more vigorous when raised from seeds than if the old plants are kept; still, in the case of *P. obconica* any plants of a superior variety that it may be desired to increase can be divided into single crowns in spring, and if kept close till the roots are active will grow away freely afterwards.—T.



IN THE ROCK GARDEN, ROYAL GARDENS, KEW.

them the protection of frames from excessive moisture in winter. When in flower they are shown in the Alpine house, which is simply a small greenhouse without heat. I got the idea from a visit to Messrs. Ware's nursery at Tottenham, where I also learnt the use of broad shallow pots. It makes a charming display from Christmas to June. Many things are included in it which are hardy enough in the open ground, but which make a sorry spectacle in the blustering rigours of our English spring. The Alpine house was built in 1887 and enlarged in 1891.

The friends of Kew—and they are many—have given generous help to enrich the rock garden. It would be impossible to enumerate them here. But I must not omit my friend Mr. Whittall of Smyrna, to whom we owe the lovely sheets of *Chionodoxas*.

Lastly, honour to whom honour is due. The construction of the rock garden was carried out with indefatigable energy, under my direction, by the late Mr. Dewar, who was

Master, Mr. G. Bunyard, presided. Mr. Eggleston said the Fruiterers' Company, in its desire to advance the art of fruit-growing, had come to the conclusion that it was of no use to try to teach new methods to grown-up people. Their efforts in the future were to be in the direction of instilling into the young mind new ideas and up-to-date plans, whereby fruit could be grown to perfection in this country and a satisfactory profit made. On the suggestion of the Master and Miss Bunyard a series of five charts, or diagrams, was about to be issued, illustrating the culture of fruit, and these would be hung in elementary schools. The idea had already been approved by upwards of a dozen county councils, and, later, they hoped to issue some thousands of sets.

**Exhibit of Potatoes.**—Messrs. Sutton and Sons have pleasure in announcing that on Tuesday next, February 13, on the occasion of the annual meeting of the Royal Horticultural Society, they will be staging a remarkable and comprehensive exhibit of Potatoes, containing features of special interest. Included in the col-



**Royal Horticultural Society's examination.**—The society's annual examination in the principles and practice of horticulture will be held on Wednesday, March 28, 1906. Candidates should send in their names not later than March 1. Full particulars may be obtained by sending a stamped and directed envelope to the society's offices, Vincent Square, Westminster, S.W. Copies of the questions set from 1893 to 1905 (price 1s. 9d., or 10s. a dozen) may also be obtained from the office. The society is willing to hold an examination wherever a magistrate, clergyman, schoolmaster, or other responsible person accustomed to examinations will consent to supervise one on the society's behalf. In connexion with this examination a scholarship of £25 a year for two years is offered by the Worshipful Company of Gardeners to be awarded after the 1906 examination to the student who shall pass highest if he is willing to accept the conditions attaching thereto. The main outline of these conditions is that the holder must be of the male sex, and between the ages of eighteen and twenty-two years, and that he should study gardening for one year, at least, at the Royal Horticultural Society's gardens at Wisley, near Ripley, Surrey, conforming to the general rules laid down there for students. In the second year of the scholarship he may, if he like, continue his studies at some other place at home or abroad, which is approved by the Master of the Worshipful Company of Gardeners and by the council of the Royal Horticultural Society. In case of two or more eligible students being adjudged equal, the council reserve to themselves the right to decide which of them shall be presented to the scholarship.

**A new pink Rose.**—The American gardening papers report very favourably of a new bright pink Rose called *Queen Beatrice*, a cross between *Liberty* and *Mme. Abel Chatenay*. It is claimed that it will produce four times as many blooms as *Bridesmaid*, while it is much brighter in colour. Its growth is said to be much stronger than that of *Bridesmaid*, the flowers having better stems. *Gardening (America)* says that this new Rose was obtained from Messrs. John Laing and Sons, Forest Hill, S.E.

**Red Tea Roses.**—In Mr. Goodwin's interesting article on the above there was one omission from his list I should like to notice, and that was *Dr. Rouges*. It is a delightful Rose that always seems to me to be related to *L'Idéal*, but the growth is better, and the colour has a copper tint suffusing the red that gives these Teas so much value. We cannot all grow the fast-running Roses on walls, but one can have them as standards, and this one makes a lovely standard with a semi-drooping head. I wonder if Mr. Goodwin has tried *Souvenir de Thérèse Levet* as a standard; if not, he should do so before he condemns the Rose. Some of these red Teas are a great success upon low walls, or planted between other taller subjects. Some of the finest plants I ever saw of *Princesse de Sagan* were growing near walls in the Duke of Devonshire's garden at Compton Place, Eastbourne. After the much-boomed *Etoile de France*, and its utter failure as a reliable outdoor Rose, one is chary of placing too much reliance upon these continental productions.—P.

**Shrubs and climbers for low walls.**—There are walls—retaining walls they may be termed—which soon assume a dirty tint if left uncovered, and they are not high enough for fruit trees or free-growing Roses. These walls might easily be made presentable if planted with something that grows reasonably close or that may be trimmed a little at the right season. The yellow winter-flowering *Jasmine* is very beautiful now on a low wall. *Forsythia viridisima* may be used in a similar way, as may also *F. suspensa*, a more graceful form, which flowers a little later. I have recently seen a low wall prettily covered with *Euonymus radicans* varie-

gata and mixed China Roses, such as the old pink and white *Monthly*, *Queen Mab*, *Laurette Messimy*, and others. The planting was arranged in panels, the dividing bands being formed with the variegated *Euonymus*. Something is required that will grow freely enough to hide the wall. The *Euonymus* which forms the panels grows very close, but the China Roses are allowed freedom.—H.

**The Weeping Birch (Young's variety).**—For lawn planting Young's weeping variety is one of the most elegant trees. It is often grafted standard high, but I prefer those trees which are furnished with branches from base to summit, as being more natural and more graceful. Such trees may be obtained by layering. The weeping Mahaleb Cherry is also a graceful tree.—H.

**A splendid group of Orchids** will be shown on Tuesday next, the 13th inst., at the Royal Horticultural Hall, Vincent Square, Westminster, by Jeremiah Colman, Esq. The group, which will cover 500 feet of staging, will consist of *Dendrobiums* from the famous collection at Gatton Park, Reigate. We publish this note in consequence of numerous enquiries as to the date upon which Mr. Colman's *Dendrobiums* will be exhibited.

**Rainfall in 1905.**—Rainfall at Scampston Hall Gardens, York:

Month.	Total depth	Greatest fall in 24 hours.	Number of days on which rain fell.
	Inches.	Inches.	Date.
January ..	0.49	0.12	17
February ..	0.91	0.20	26
March ..	1.91	0.34	29
April ..	1.29	0.30	19
May ..	1.10	0.45	2
June ..	1.27	0.54	23
July ..	1.39	0.39	23
August ..	2.26	0.46	4
September ..	1.55	0.30	10
October ..	1.76	0.30	15
November ..	2.70	0.43	29
December ..	0.40	0.16	1
Total ..	17.73		176

—F. C. PUDDLE.

At Buckland Gardens, Bwlch, R.S.O., Brecon:

Month.	No. of days on which rain fell.	Greatest depth in 24 hours.	Total per month.
		Inches.	Inches.
January ..	7	0.58	1.45
February ..	8	0.30	1.41
March ..	21	1.46	7.67
April ..	15	0.30	4.55
May ..	4	0.23	0.42
June ..	11	0.30	3.02
July ..	6	0.72	1.10
August ..	16	1.48	5.11
September ..	10	0.91	2.43
October ..	8	0.44	2.47
November ..	15	0.30	4.21
December ..	6	0.30	1.02
Total ..	127		34.76

Total rainfall for 1904 was 36.33. I may say that for this month we have had only five days on which no rain has fallen. The total to January 30 is 8.18, being more than October, 1904, when I measured 7.83.—A. J. KEEN.

**Pegging down Roses.**—Before the season of pruning arrives it may not be amiss to call attention to the practice of pegging down or arching over the long growths of many Roses that seem too good to cut away. A friend recently mentioned a great success he once achieved with a *Fisher Holmes*. This Rose had made growths some 3 feet to 4 feet long. Instead of pruning them back to 1 foot or 9 inches, they were retained full length, bent over, and secured by strings to pegs driven in the ground. The result was a quantity of blossom throughout the full length. After flowering they were cut away, their place being taken by new shoots already growing well. There is nothing new in this, for does not Nature teach the lesson herself in the hedgerows? Where do we see such a profusion of blossom as on a bent growth of the wild Dog

Rose? I should not recommend the practice for exhibition Roses; but rather where a lot of useful buds are wanted. Some notoriously shy-blooming Roses may well be treated like this.—P.

**Winter-flowering Kniphofias.**—It might interest readers to hear that in my garden at present are flowering two *Kniphofias*, namely, *Star of Baden-Baden* and *Grandis*. The former is about four years old and the latter was planted last year. They both flowered last year. The stems are about 2 feet high. We have sandy soil and a bleak aspect, and no protection whatever.—ROBERT BROOM, *The Acres, Barnston, near Birkenhead*.

**A prettily-covered arch.**—Much is being done with Roses and Clematises in country gardens, yet still more might be done. A rustic arch covered with *Clematis Jackmanni* and *Aimée Vibert* Rose is very effective most of the summer. The *Jackman Clematis*, if pruned back annually, will cover the base of the arch, and *Aimée Vibert* will fill in the top in a charming manner. Put in strong plants out of pots now and an arch may be prettily covered this coming summer.

**Eupatorium vernale.**—There can hardly be two opinions as to the value of this winter-flowering greenhouse plant. It is by far the best of the *Eupatoriums* that flower at this season; in habit and freedom of flowering there is little to be desired. The large heads of snowy white flowers are produced naturally at mid-winter in an ordinary greenhouse temperature. In propagation and growth it may not be quite as free as some of the others, but the culture is not by any means difficult. Late-rooted plants in small pots are exceptionally useful for decorative purposes, and the larger plants give plenty of choice flowers for cutting.—H. STARK, *Bourne-mouth*.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### MECONOPSIS RACEMOSA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of the 20th ult., E. Horton takes exception to the description of the above plant which appeared on page 384, December 16, 1905. The description given there is that of the grower who had charge of the plants during at least a part of their existence, and who actually photographed the group illustrated in THE GARDEN of the above date. It was, however, pointed out to me at the time by a competent authority, who saw the said plants in flower, that I might have mentioned the blue shades also occurring in *Meconopsis racemosa*, otherwise the same authority had no fault to find with the brief note accompanying the illustration.

May I also point out that this same description appeared in THE GARDEN so long ago as September 17, 1904, and, as far as I know, has gone unchallenged till now. It is inconceivable that E. Horton did not see this description, so that it is only after a lapse of some sixteen months your correspondent thinks fit to make corrections. It seems tolerably certain that the colour of the flowers is variable, and I have no doubt that, as the plant under notice becomes distributed among growers, we shall have other descriptions. Personally, I am very chary of accepting "iridescent" descriptions, such as your correspondent gives; but as I did not see the actual plants in flower, I am glad E. Horton has such a good opinion of *Meconopsis racemosa*.

I agree heartily with the statement that we cannot lay down hard-and-fast rules for the



cultivation of *Meconopsis*, until we know more about the plants. Unfortunately, your correspondent, after detailing the different conditions under which he has grown *Meconopsis*, writes thus, "to succeed in the culture of *Meconopsis* Walliohii . . . it is necessary to choose a moist shady position," &c. Now this looks suspiciously like laying down rules for at least one species.

To the best of my belief the *Meconopsis* at Kew are mostly grown in a moist shady recess of the rockery in rather peaty soil. Here I had an opportunity of watching their behaviour for several years, and quite recently examined the collection in company with Mr. Irving, when, in my opinion, the plants promised well for the coming season. In the Co-operative Bees' Nursery certain species are cultivated under a variety of conditions—some in pots in a light house, others in frames, still others plunged outside, while in the rock garden *M. paniculata* flourishes, planted out in the staple soil, which is of red sandstone formation. This latter position is only very slightly shaded by a raised portion of the rockwork. Thus, surely, before long it will be possible to give fairly definite cultural directions; meanwhile, one can only give faithfully the treatment which has so far been noted as most successful. J. W. BESANT.

Ness, Neston, Cheshire.

### YOUNG GARDENERS' OPPORTUNITIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—IN THE GARDEN for the 13th ult. your correspondent "J. Gardner" writes of the neglect on the part of young gardeners to study different subjects which would fit them more thoroughly for the various branches of their profession when they rise, in after years, to the position of head gardener. No one, thinking of the bustling age in which we live, dare say that an adequate education is not the most essential adjunct to the prosperity of any man at the present day, no matter what may be his station in life. Thus reasoning, and provided that such a resolution once started is never lost sight of, I fully conform with the advice given by your correspondent to young gardeners in general; and I say start at once, for there is no time to lose. A proof of this will not be hard to find in the many shortcomings of some of our head gardeners who hold responsible positions to-day. Many who read this will most likely remark that the idea is absurd in the extreme, and that I am one of our ambitious men who, in their ignorance, think themselves undoubtedly perfect, but I venture to say that such are the men for which my remarks are most especially intended. We can always hear of the shortcomings of young gardeners, but we cannot possibly assume from such statements that our head gardeners are infallible.

One more point, the most important of all: gardeners of the type I have just mentioned take in young men and boys on the assumption that they are to learn gardening in the most thorough manner, and, what is still more ridiculous, they may pay a premium. Is there any occasion for surprise at the tardiness of the scholar (with all due allowances for the dullard) when the qualifications of the teacher are so inefficient. I hope that sometime in the near future power may be given to the British Gardeners' Association, or some such society, to enable them, as far as possible, to place the most deserving and capable men in their proper positions, an act which would go far to raise, in many ways, the gardening profession as a whole.

Lancs.

J. T.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—While the wave of education is sweeping through the country, affecting almost every branch of industry, it seems a pity that young

gardeners do not see the folly of ignoring the many opportunities of study which are open to them, and the thanks of your readers are due to Mr. Gardner for calling attention to the subject. Let us take botany, for instance—not the botany which contents itself with learning the names and orders of common flowers, but the study of the anatomy of plants, &c. The student will acquire a new interest in his work and a quickening of the faculty of observation which no other study can give him.

Let us suppose a young gardener living in the country has taken up the study of botany. He should communicate with the museum authorities of the nearest town, offering to send in wild flowers, which will be gladly accepted. He should number each specimen, and send a list with the corresponding number and name. The list will be returned corrected, possibly followed by a request to examine trees in the neighbourhood for certain forms of insect-life. This will lead him almost unconsciously into being an entomologist as well as a botanist, besides forming friendships which may last a lifetime.

I think the trend of public opinion points in the direction of making the public parks and gardens of more use from an educational point of view. Probably they will be required to supplement the teaching of the technical and elementary schools, and the superintendents and head gardeners will be required to give addresses and lectures to classes and students on botany and Nature study. Should such be the case and the young gardeners fail to qualify in botany, they will be mortified to see the appointments given to the lady gardeners.

Latchford.

F. FULLER.

### THE SMALL ORCHARD.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 12 Mr. Owen Thomas draws a charming word-picture of the delights and advantages of having fruit orchards attached to country cottages. He describes this as a means of checking the migration of country people to towns, and dwells on the pleasure—to say nothing of the profit—to be obtained from an orchard at all seasons, spring, summer, autumn, and winter. Mr. Thomas would like to see an orchard of, say, a quarter of an acre attached to every workman's cottage in the country. Just so; the wish is a very worthy one, but how remote are the chances of its ever becoming a reality! The first difficulty to be overcome would be that of getting the land. Even now there are hundreds of cottages in the country with not sufficient garden attached to them to grow the vegetable supply required for the family; indeed, there will have to be a considerable change of views before we find landlords cutting up fields into quarter-acre plots and attaching them to cottage holdings. Supposing, however, that this did come about, and workmen's cottages in our villages were provided with quarter-acre plots for fruit culture, who would do the planting? If landlords would do it, all well and good, but the cry is that they get little enough out of cottage property as it is, and if orchards were attached and planted rents would have to go up considerably. Suppose the planting was left to the cottager. Not many of them have the capital to buy and plant fifty or sixty standard trees and wait until they come into bearing. Even if they were in that position, cottagers are mostly weekly tenants, and they would want considerably more security than they have at present before they could be induced to plant a quarter of an acre of ground with fruit trees; indeed, it is quite likely that more fruit would be grown in cottage gardens at present if the occupiers of the same had more security or claim for compensation in the event of leaving the holding. We want to keep the country workers in the villages, but before they can grow fruit they must be provided with the land, and some arrangement must be made about planting and ownership of the trees.

G. H. H.

### FORMATION AND CARE OF LAWNS.

ANYONE who has travelled on the Continent must have been struck with the systematic care which is lavished upon the production and up-keep of the green sward. Though all grass swards in gardens are lawns, yet the varieties of lawns are much greater in England than elsewhere. While the foreigner is content with a patch of grass to throw up his flower-beds, the lawn in England is expected to bear the wear and tear of constant use, and the uses to which lawns are put are so different, and the wear and tear they undergo vary so greatly in degree, that it is necessary to create a new lawn or to deal with an old one according to the uses to which it will in future be put.

When the formation of a lawn is contemplated, the first point for consideration is, of course, where it shall be. Where, however, a choice is possible, preference should certainly be given to land with a northern aspect. Where local circumstances make a plentiful supply of water impossible, the question of aspect is a far more important matter than is generally realised. In the preparation of land, drainage, where necessary, takes precedence of all other work. The roots of most grasses do not penetrate far into the soil, and consequently deep drainage is not a necessity, and a very usual distance is 15 feet between the rows and a depth of 3 feet from the surface.

SOIL.—The most suitable situation having been decided upon, the next consideration is the character of the soil, and it is desirable to consider this point with reference to the purpose for which the lawn is required. For general purposes nothing better can be desired than a somewhat deep, rich loam sufficiently porous to allow of satisfactory drainage. Unfortunately, however, it is seldom that one finds such a soil available, and, therefore, it may often be necessary to introduce fresh surface soil from elsewhere.

In the preparation of cricket grounds, the soil of which happens to be of a crumbling nature and of a very porous character, it has often proved a great advantage to cover such part of the surface as may be requisite for the wickets with a few cart-loads of clay to the depth of 1 inch or 1½ inches. Where clay has been put on in this way in the autumn, and has been broken up during the winter by the action of frost and rain, it has been found to roll down into a splendid surface in the spring, and to stand constant hard wear in a way which the original soil would have been quite incapable of doing. This plan might be followed with advantage in the preparation of many lawns of a light and crumbling character, especially where intended as tennis courts. The comparatively slight depth of the clay is not sufficient to prevent drainage, while the surface is improved at least 50 per cent. On land of a very light or sandy nature little success can be hoped for without a coating of soil of a more retentive character. Such operations may be dreaded on account of their cost, but in view of the fact that a lawn once put down is expected to stand for many years, it is really false economy to avoid such expenditure as may be necessary in order to obtain a satisfactory surface. It should also be remembered that no amount of manure can compensate for an unsatisfactory soil, as in the case of very light soils all soluble manures will be washed through immediately, and at the end of a couple of years the land will be just as bad as it was before the application.

A word of warning is, however, necessary as to imported soil, inasmuch as, however good it may look in quality, it is almost certain to contain seeds of many objectionable weeds, and unless steps are taken to destroy them, when the grass seed is sown they will grow up with the grass and may eventually kill the finer grasses. It is not too much to say that 90 per cent. of the

complaints which the seedsman receives about alleged impurities in the lawn seed supplied is not traceable to the seed at all, but to the weeds that have been introduced in imported soil; indeed, to anyone who understands the subject at all, it is obvious that many of the weeds complained of come from seeds which, from their size and shape, could not possibly be included in a mixture of lawn seeds by any seedsman possessing the slightest knowledge of his business.

The only perfect remedy is to burn all imported soil, and in the case of heavy or clay soil the burning has such beneficial results that it is a practice worth adopting quite apart from the weed seeds. It must, however, be remembered that the process of burning removes most of the fertilising properties of the soil, and these must be returned in the form of manure, as care should always be taken that the land to be used for forming lawns is in thoroughly good heart. The maintenance expenses of lawns would not be nearly so heavy if the preparatory work were carried out efficiently. The top spit of the soil, or at least the upper 6 inches, should consist of a good loam into which a heavy dressing of well-rotted farmyard manure has been incorporated. Thirty cart-loads, or even more, per acre will not be too much. In connection with the preparation of land for lawns, the usual practice is to commence operations in autumn and to allow it to lie fallow throughout the winter. This undoubtedly means unsightliness for the time being, but it will result in that beautiful tilth from the action of frost which is a *sine quâ non* for successful sowing.

That the ground should be level is so obvious that it is hardly necessary to state it, but a friable condition of soil is essential, and no good lawn can be obtained without it. Constant raking and rolling after such winter fallow will do wonders.

#### TURFING versus SOWING.

I propose to introduce a few remarks as to the comparative merits of the formation of lawns by turf and by seed. Probably the chief advantage that turf possesses over seed is that a lawn is at once covered with grass instead of remaining bare for a considerable period. In addition to this, however, it is often supposed—and the assumption is sometimes correct—that a lawn composed of turf can be more quickly brought into a condition fit for use than a lawn sown with seed. Every practice has its merits, but it is now generally admitted that the advantages of turfing are far outweighed by the very serious disadvantages which are apparent the moment turfing is contemplated. There is first of all the difficulty of finding really good turf, and turf which may look excellent in a meadow, consequent upon close grazing and treading by sheep, may prove to be utterly unsuitable after being taken up and put down to form a lawn under totally different conditions.

It should be remembered that natural turf is composed of grasses which are suitable to that particular soil upon which it is growing, consequently if turf is removed to another locality only those grasses will flourish which, like the stronger varieties, can adapt themselves to their new surroundings. Another point to which particular attention should be given is that in these days when the preparation of special prescriptions of grasses to meet particular needs has been brought to a science, the adoption of turf is to this extent an antiquated policy, in that it makes an intelligent combination of grasses out of the question. The cost, however, of turfing will always remain one of the chief difficulties, unless, indeed, one is so fortunate as to have in one's own possession good turf close at hand. It has been estimated that the average cost of laying out an acre of land with turf usually runs into close upon £100. This includes labour involved in cutting, carting, and relaying, in addition to the actual prime cost.

In view of the fact that a mixture of the very finest grasses obtainable, of guaranteed purity and germination, and amply sufficient in quantity to sow an acre, can be obtained at the outside for 4s or 4s 6d, it will be seen that turfing is a



A GROUP OF THE HIMALAYAN EREMURUS.

practice not to be resorted to without the strongest possible reasons. It is certain that a lawn prepared in the way it should be, and sown down with the finest seeds, will, if properly tended, produce an infinitely finer turf than can ever be obtained by the process of turfing, while with reference to the formation of a lawn by this means it is perhaps sufficient to say that from a sowing of pure seed of high germinating power I have known lawns fit to play on in from eight weeks to ten weeks from the date of sowing. I need hardly say, however, that such results are only obtainable in exceptional circumstances. Apart from all these considerations, however, there may be isolated cases where turfing can with advantage be resorted to, and it may be advisable, therefore, to point out that the turves should be laid in the autumn.—*Extracted from a lecture by Martin F. H. Sutton before the Royal Horticultural Society.*

(To be continued.)

## THE FLOWER GARDEN.

### THE HIMALAYAN EREMURUS.

THE handsome Himalayan Eremurus has proved to be one of the most easily managed plants of a genus notoriously difficult of cultivation. However, with the better knowledge of their requirements which has come with experience, it is possible to select a suitable place in nearly every garden where they will flourish. It is true that they take more readily to some gardens, growing there naturally and with little attention, while in others special conditions have to be provided for them. A well-grown group of these noble plants in flower, as seen in the accompanying illustration, provides a striking feature. Eremuri need a well-drained and somewhat sheltered position. Anything like stagnant or sour soil in winter is fatal to these plants, whilst in the summer they require abundant moisture during growth. Eremuri start into growth early in the year, and the tips of the leaves as well as the flower-spikes are frequently cut back by the late spring frosts, spoiling the latter for the season. It is, therefore, advisable to plant between low-growing shrubs, where they

may obtain the necessary shelter, or else the site must be provided in the shape of ashes or inverted pots until danger of frost is over. When planted between shrubs in this way the soil soon gets exhausted by the roots of the latter, and it is necessary to replant every two or three years. This work may be performed as soon as the leaves have died down, lifting the plants carefully, removing the soil to a depth of 2 feet, then filling the holes with a mixture of good fibrous loam, leaf-mould, and sand. Plant the roots so that the crowns are about 6 inches below the surface of the ground, using plenty of sharp sand, in order to make a bed for the crown to rest on. Plants in open prepared beds do not require lifting so often, and may be left alone for several years, with the exception of an occasional top-dressing of fresh loam and leaf soil. Altogether there are about twenty species belonging to this genus found in Central and Western Asia, of which about ten have been introduced into cultivation. Of these all but four or five are confined to collections or botanic gardens. The four best are:

*E. Bungei*.—A native of Persia, with narrow glaucous leaves and stems 4 feet to 5 feet high, closely set on the upper portion with bright yellow flowers. It is not so hardy as the others, and requires a warmer, more sheltered position. When in a suitable situation it increases freely, making handsome tufts, and produces numerous flower-stems about the end of June.

*E. himalaicus*, shown in the illustration, is a native of the Himalayas, with broad green leaves, and flower-stems 5 feet to 8 feet high. The flowers are pure white with yellow stamens, and are produced in April.

*E. Olgae*.—Found in Turkestan. This is somewhat smaller and more slender than the above, with rose-coloured or white flowers tinged with pink, on stems 5 feet to 6 feet high. It is the latest to flower, and does not bloom till July.

*E. robustus*.—Also from Turkestan. This is the noblest plant in the genus, with stems reaching a height of 10 feet or more. The flowers are rosy pink in colour, and generally produced in May. This is the oldest species in cultivation, as well as the finest. The variety *Elwesii* is a robust form with somewhat deeper rose-coloured flowers. There is also a form with pure white flowers.

Of late years many hybrids between the different species have been raised, including

*E. him-rob* (*E. himalaicus* × *robustus*), with pale pink flowers; *E. Mrs. Reuthe* (*E. turkestanicus* × *Bungei*), with pale yellow flowers; *E. Tubergeni* (*E. himalaicus* × *Bungei*), with pale yellow flowers; and *E. Warei*, with long spikes of flowers which have been described as orange-salmon in colour. W. I.

## THE FRUIT GARDEN.

### THE SMALL ORCHARD.—II.

**B**EFORE detailing the method of forming and planting, I may say it is on the lines on which most of our old orchards are planted, namely, on pasture or grass land, that I recommend the planting of these small orchards of a quarter of an acre, more or less, in extent, in association with country workers' cottages, because, where standard trees are thus planted, the after-management of the orchard in the matter of labour is reduced to the lowest minimum. This is important, as the worker could not well spare the time to devote to the growth of bush trees planted in well-cultivated arable land, which, no doubt, give the quickest and best returns. Moreover, the grass land under the standard trees may be turned to many advantages which go to supplement the returns of fruit from the tree. The grass may be converted into hay. It forms a splendid poultry-run, and affords an excellent opportunity for keeping bees, besides, as I said before, making a delightful playground for children. The cardinal points it is necessary to observe in forming a successful orchard of this description are the following:

**POSITION.**—In the case of the cottage orchard such as that under consideration, the position will depend very much on the immediate surroundings. If it can be placed near the cottage its value and utility will be enhanced; but in any case it should not be far away. An ideal position for an orchard is on slightly rising ground, protected by trees or some other shelter (about thirty yards away from it) on the north and north-east sides, and fully open to the south and west.

**DRAINAGE.**—If the soil rests on gravel or any other medium through which rain passes quickly, and the land has a slight fall, so that water can pass freely away, no artificial drainage is necessary. Should the land rest on clay or marl it will be absolutely necessary to have it drained before planting.

**SOIL.**—Fruit trees will grow and give moderate returns from almost any sort of soil if it is well drained, cultivated, and manured before the trees are planted. The only soil in which it would not be worth while planting trees is that which is very thin and rests on gravel or sand. Even with good and generous cultivation it would be hopeless to expect permanent profitable returns from such land. I mean land with only a depth of from 6 inches to 7 inches of surface soil. On the other hand, land having from 12 inches to 15 inches of soil resting on the same foundation with good cultivation would soon give remunerative results. But the best land of all for such orchards, if available, would be a deep marly loam resting on gravel.

#### PREPARING THE LAND.

The best preparation is to trench the whole of the land it is proposed to plant  $2\frac{1}{2}$  feet deep, adding well-rotted manure at the same time at the rate of thirty tons to the acre, well incorporating the manure with the soil

as the work of trenching proceeds, but not burying any of it deeper than 12 inches. If the land should be in grass, and the trenching of the whole be decided on, the top spit should be buried 20 inches deep whilst the trenching is going on, and the land sown with grass seeds to form a new pasture after the trees are planted. On land subjected to this method of culture trees make much greater progress than they would do on land poorly cultivated. The carrying out of this method of culture we know is expensive in the first instance, but it is an investment that yields a splendid return in the end. However, I know that to many the carrying out of this method of culture is out of the question, by reason of the time and expense entailed. The next best way is to mark out the ground in which the line of trees is to be planted, and to trench the whole of it  $2\frac{1}{2}$  feet deep, and for a width of 6 feet, manuring the land at the rate previously recommended as the work proceeds. This method will be attended with much better success in years to come than if the trees are planted in round or square holes in the usual way. In winter, in very wet weather, these holes often form a water-tight receptacle by reason of the hardness and solidity of the sides and bottom, in which the roots, to their detriment, and often to the destruction of many of them, are immersed for days, and sometimes for weeks, together.

**DISTANCE APART TO PLANT.**—Eighteen feet between the rows should be allowed in planting in ordinary soils (in rich soils 24 feet would be better). The distance between the trees in the rows (I am speaking of standards) should be for Apple and Pear trees 16 feet, and for Plums 14 feet. The trenched ground in which the trees are planted must be sown with grass seeds to within 4 feet of the stems of the trees. This space should always be kept clear of grass or weeds, and in the case of those trees bearing good crops this space should receive a dressing of manure in order to help the tree to swell up a heavy crop of well-developed fruit. Trees not bearing good crops are better without the manure.

#### PLANTING.

Carry out any time between October 31 and February 29, when the weather is open and the ground in a fairly dry condition. Never plant in wet, sodden soil or in frosty weather. The roots must not be planted too deep. Seven inches below the surface is deep enough. Make the soil firm in the hole before planting into a dwarf cone, and press the centre of the roots on to this until their points are slightly elevated by the pressure. This will help the roots to form surface fibrous roots afterwards, instead of encouraging them to strike down into the subsoil, as would be the case if the roots pointed downwards at the time of planting. A dressing of manure should be placed over the surface soil, as far as the roots extend, in spring and continued through the summer, in order to prevent evaporation and to retain moisture in the soil until the roots have obtained a firm grip of it.

**STAKING.**—Every tree should be secured to a stout stake for the first three years to prevent its roots being disturbed by the swaying of the stems by the wind.

**PROTECTION.**—The orchard must be protected not only from cattle, but from hares and rabbits. The most effective way of doing this is to surround it with a fence of posts and

rails 5 feet high, against which on the outside wire-netting 3 feet high and of  $1\frac{1}{2}$ -inch mesh should be fixed, and as a boundary on the inside against this fence I would recommend that a hedge be planted of Loganberry or the Parsley-leaved Blackberry. The former bears heavy crops of valuable fruit for jam-making or for cooking, and the latter variety is the best of all the Blackberries.

#### VARIETIES TO PLANT.

In the past English fruit growers have invariably committed the fatal mistake of growing too many sorts. I shall, I hope, be absolved from helping or encouraging them to continue to make this mistake in the future, for I will confine my list to twelve varieties of Apples, six of Pears, and six of Plums, all of good quality, reliable bearers, and sorts which will command a good price and ready sale.

**Apples (Dessert).**—Devonshire Quarrenden and Worcester Pearmain, ripe August and September; Cox's Orange Pippin, November to Christmas; Gascoyne's Scarlet Seedling, December; Allington Pippin, January; and Roundway Magnum Bonum, December and January.

**Apples (Cooking).**—Lord Grosvenor, ripe September; Warner's King, November; Lane's Prince Albert, February and March; Lord Derby, December; Blenheim Orange, December to February; and Newton Wonder, January to May. For every one of the above dessert varieties plant two of Cox's Orange Pippin, and for every one of the cooking varieties given above plant two of Newton Wonder.

**Pears.**—Dr. Jules Guyot, ripe September; Williams's Bon Chrétien and Fertility, September and October; Emile d'Heyst, October and November; Doyenné du Comice, November and December; and Josephine de Malines, January and February.

**Plums.**—Rivers's Early Prolific, ripe July and August; Belgian Purple, August and September; Victoria, August; Bryanston Gage, September; Green Gage (old), August; Coe's Golden Drop, October.

When buying Apple trees insist on their being grafted on the English Paradise stock. If the soil of the orchard is rather light, let the Pear trees you buy be worked on the Pear stock. On the other hand, if the land is inclined to be rich and heavy, the trees selected should be those worked on the Quince.

OWEN THOMAS.

## SIXTY ACRES BY THE SEA.

THE GARDEN OF LORD BATTERSEA, OVER-STRAND, CROMER.

**F**LORES cvrat Deus ("God cares for flowers") is the motto above the doorway of a homestead built of solid stone and brick that stands upon an East Coast cliff.

Ten years ago, around and between it and the North Sea, there lay a stretch of farmland. Nothing grew higher on it than a Dock or Thistle. Now a sweet-scented garden smiles to the sky, salt airs stir leaves in broad plantations, red and white Roses stud smooth lawns, Lilies flower happily in the half-shade of trees, and pond-flowers are blooming in sheltered lake and pool.

This seashore garden, with the dwelling that belongs to it, strikes the note of comfort. Open-air life is made possible for all.



Garden and house complete each other, and both are equally good to live in. Throughout its ample boundaries the question of shelter has been given the attention it demands but seldom gets. When rain falls there is no hurrying to take refuge in the nearest greenhouse or conservatory—sanctuaries unblessed to those who do not like a stifling atmosphere. The fashion set by one of our leading architects, of Anglicising Italian methods to suit the requirements of our bleaker climate, is followed here. Instead of marble alcove, step and fountain, which in English gardens get to look so dreary, we have cloister, pergola, and sheltered arbour built of stone and brickwork and beams of English Oak, substantial yet not heavy-looking, since Roses, Clematis, and other climbing and flowering plants and creepers rush up and tumble down them. And there is great variety. Here are the garden enclosed, the wind-sheltered sun-trap, the sweet-smelling garden house sacred to quiet study and full of the inspiration of fresh air, sunshine, birds' song, and the companionship of bees and butterflies. All these placed cunningly and reached with ease.

For paths in this garden are a noticeable feature. There are almost as many stone-paved walks in it as there are grass avenues and gravel paths; one may wander to and fro and up and down dry shod even in the dampest weather, and one is given another boon which, for want of a better word, we must call a stone-flagged lawn. This is unique in our experience of gardens. A sunny spot it is and very sweet. Between the crevices of the stones, somewhat irregularly set, bright flowers are always growing. This is just the place for fragrant, short-stemmed herbs to push up in between, and so they do, and footsteps passing press their perfume out "far sweeter in the air (where it comes and goes like the warbling of music) than in the hand."

It is quaint and curious that once upon a time these stones paved London streets.

Now and again one is reminded of their early life by seeing the round hole through which black diamonds used to pour. The holes are now cemented up, and make little circles among the stones like fairy rings. Ascending or descending by shallow steps one passes from the flagged lawn to the grass lawns studded and flanked with flowers.

Everybody writes nowadays about the spring garden, because of the bulbs and the Alpine and rock plants which are then at their best, or of the early summer garden for the Roses. Let us do differently, and see this seaside garden in September. The month is closing, but autumns here are fine and linger long.

A haze of soft pink lies beneath some trees; it is a colony of Cyclamen flowers that have settled down in great content. Long borders of herbaceous plants are bright with colour. Many of the beds are edged with rockwork, the stones completely carpeted with Alpine Phlox and Mosses. Ivies, too, and Ferns and many plants whose roots are fond of diving down among the stones find pasturage here.

This is a garden that is full of surprises. Here is a walk that is all of Fuchsias, there a patch of autumn Crocus, snow-white or mauve or gold. Of Roses there still are plenty—arches of ramblers and beds of bush Roses, all of one sort in a bed as Roses like, because it sets them off so well. Caroline Testout, coppery pink; Kaiserin Augusta Victoria, cream-coloured and sweet-scented; Maman Cochet, pink and cream, and many others. Here is a fountain edged with stones and a brilliant little annual *Leptosiphon roseus* planted among them. It shines out like a jewel. Here is a dovecot at the parting of several ways, and there a water garden with Ferns and *Spiræas* and Lilies. And there are thickets for natural wildness.

The plantations that protect the gardens were carefully planted. Among the shrubberies and thickets one notices the cool, grey foliage of the Sea Buckthorn, with berries

like yellow Holly, the glossy darkness of Evergreen Oak, the Tamarisk, the Black Poplar, so valuable in a seaside garden, and many Pines and Firs, with patches of shrubs for winter bravery in shades of gold, contrasted with Hollies of many sorts, Bush Ivies, and the sombre Yew. The size of many trees would puzzle us, did we not know that the removal of large timber is undertaken here with a light heart.

The idea that a sea coast garden presents almost insuperable difficulties unless it happens to be in a peculiarly favoured spot, is contradicted at every turn. Primarily it is, of course, a question of shelter. Having once secured that, it is easy to make a long list of plants and flowers that really benefit by sea air, though but a limited number can put up with the drenching of salt spray or the onslaught of cutting winds. Among the plants that are enjoying sea air in this garden we might instance *Hydrangeas*, *Fuchsias*, *Veronicas*, *Escallonias*, *Ceanothus*, and the *Gum Cistus*. As to fruits and vegetables there is never any difficulty with them; many vegetables we know are indigenous to the seashore. Asparagus is one that is as much at home upon the coast-line as an oyster. Fig and Bay tree grow luxuriantly, and, strange to say, many delicate plants that would perish during winter in inland gardens further south do well here. Such things as *Marguerite Daisies*, *Calceolarias*, *Gazanias*, the scented *Verbena*, and even the *Agapanthus Lily* remain evergreen and uninjured out of doors if given the least protection. The salt air may feel damp and cold, but the soil is dry and kind, and, as native gardeners express it, "the sea air cuts the frost."

One decade has sufficed to summon up this garden on a cliff as if by magic, but still the air is full of promise. In gardening the time never comes when one can run up a flag and say that it is finished, and so the owner of these seaside acres seems to think. F. A. B.

## THE ROSE GARDEN.

### A ROSE PERGOLA.

A FULL view of the Rose pergola at Kew, which is covered with a representative collection of climbing Roses, is given in the accompanying illustration. The pergola—if pergola it may be called—consists of a series of upright posts and crosspieces of iron, connected by a series of chains. Roses are generally said to prefer to climb on wood rather than on chains, but the plants illustrated have grown very well, and in the summer-time this pergola is very beautiful. There are so many varieties planted here that anyone interested in climbing Roses might very profitably take note of the behaviour of each one.

### WEeping ROSES AND THEIR TREATMENT.

THERE is much difference of opinion as to the best way of pruning these Roses the first year. If planted in the autumn I have found all the multiflora race are best pruned back hard, say within 3 inches or 4 inches of the bud. The *wichuraiana*, *sempervirens*, and *arvensis* groups may have some growths cut hard back, and a few left their entire length. The latter, after flowering in June and July, should be removed to their base. Supposing spring planting be adopted, say if planted in February and March,



A ROSE PERGOLA IN THE ROYAL GARDENS, KEW.



in my opinion the trees should not be pruned at all until they have blossomed. The growths retained by the early leafage produced assist root action, which should be the aim of the cultivator. Such trees will bloom along the trails of growth, and although it will be of moderate quality, yet they will be interesting objects for the time being. As soon as the bloom is on the wane, cut back hard most of the growths, retaining, perhaps, one or two. If the trees are healthy, and well supplied with good roots, work in good trenched soil, and fine shoots will be produced the same season that will furnish blossom the following year. P.

### ROSE MAHARAJAH.

ALL who value richly-coloured crimson Roses will find in this beautiful, almost single variety,

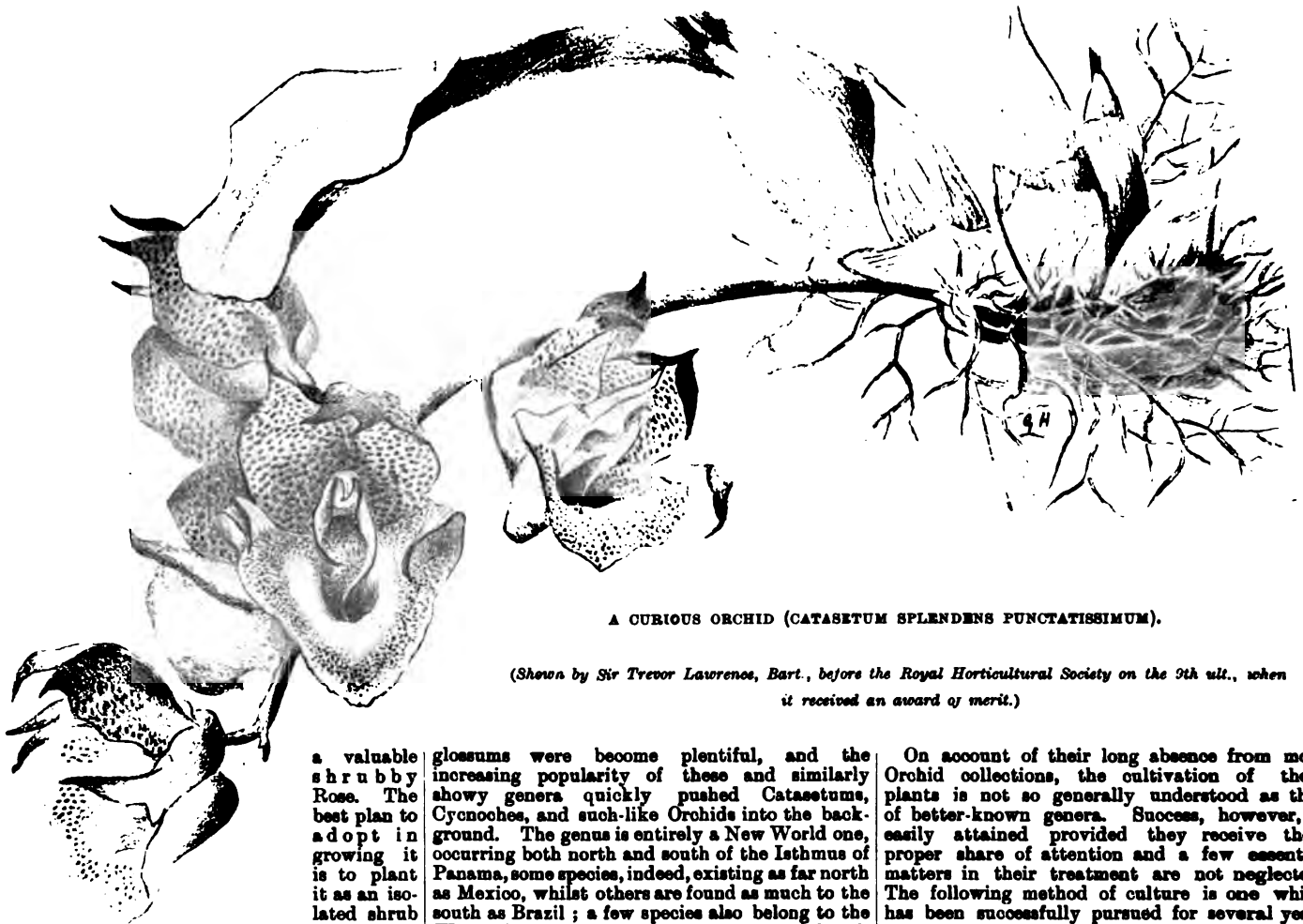
Rose Bardou Job, or the exquisite seedlings lately raised from *Rosa macrantha*, such as Lady Curzon, Mrs. O. G. Orpen, Lady S. Wilson, and others. Then we have Bellefleur, with its conspicuous golden anthers against the bright crimson setting of the petals. P.

## ORCHIDS.

### THE CATASETUMS.

FIFTY or sixty years ago, when the Orchids of South America were first becoming generally known in the gardens of this country, no class appears to have been more highly valued than the *Catasetums*. This, however, was before the Cattleyas and Odonto-

to bring about this end; it is one of the few also in which the sexes are found in different flowers, hermaphrodite flowers being comparatively rare. In the majority of the diceous species, the male flowers, or those carrying pollen masses, have two "horns" or antennae, one on each side of the column, proceeding downwards towards the cavity of the lip, and one or both of these are sensitive. When the flower is mature the pollen masses are ejected with considerable force if these horns are touched ever so lightly, so that an insect (as has been occasionally witnessed even in Orchid houses at home) on passing over the flower touches the sensitive horns and thereby releases the pollen masses; these, adhering to the insect's body by their glutinous surface, are thus brought in contact with the female flowers afterwards visited.



A CURIOUS ORCHID (*CATASETUM SPLENDENS PUNCTATISSIMUM*).

(Shown by Sir Trevor Lawrence, Bart., before the Royal Horticultural Society on the 9th ult., when it received an award of merit.)

that will afford it free scope to spread. It will make fine arching growths that if allowed partly to droop will be covered over with a rich array of large attractive flowers. I have no doubt this Rose owes its origin to the same parentage as Ben Cant; if not, I think I should be safe in saying it is the result of a cross between brilliantly-coloured Hybrid Perpetuals. I can well remember the time when Roses of this type, perhaps not quite so large in bloom, were pulled out of the seed plots and destroyed. Times have changed and also tastes, and one must admit that they have changed for the better. We do not want all stiff, formal, very double show blooms, but rather more of the type of Maharajah, providing they are distinct. Who can help admiring that delightful velvety crimson

a valuable shrubby Rose. The best plan to adopt in growing it is to plant it as an isolated shrub on the lawn or anywhere

glossums were become plentiful, and the increasing popularity of these and similarly showy genera quickly pushed *Catasetums*, *Cynochas*, and such-like Orchids into the background. The genus is entirely a New World one, occurring both north and south of the Isthmus of Panama, some species, indeed, existing as far north as Mexico, whilst others are found as much to the south as Brazil; a few species also belong to the West Indian Islands. They are purely epiphytal, or sometimes semi-terrestrial, and have large fleshy pseudo-bulbs. In most instances the latter are fusiform—tapering from the base upwards—although sometimes so short and thick as to be almost Onion-shaped. They are generally easily distinguished by being covered almost entirely by the dried membranous bases of fallen leaves, which give them a greyish colour.

Although there are many genera in this order of plants whose beauty of flower places them considerably ahead of *Catasetum*, there is not one which shows in so striking a manner those peculiarities of structure and arrangement which, in order to bring about cross-fertilisation by insect agency, are found in some form or other in almost every Orchid known. This genus is one of the few in which what may be termed mechanical means are made use of

On account of their long absence from most Orchid collections, the cultivation of these plants is not so generally understood as that of better-known genera. Success, however, is easily attained provided they receive their proper share of attention and a few essential matters in their treatment are not neglected. The following method of culture is one which has been successfully pursued for several years in a collection of over a score of species. So far as temperature and atmospheric conditions are concerned, *Catasetums* may be said to be identical in their requirements with the tropical *Dendrobiums*. During active growth they like the same tropical heat, the same atmosphere highly charged with moisture, the same abundant light. There is, however, one important exception: they will not bear the copious syringings that *Dendrobiums* thrive under; especially is this the case during the early stages of growth. As soon in autumn as the leaves begin to change colour, water should be gradually reduced, until in winter little or none is needed except for those pushing flower-spikes. The compost we have found best suited for the majority of these plants consists of peat and loam fibre. The proportion of loam should not be more than one-fourth, whilst for weaker-growing

kinds and plants not in good health, peat alone may be used. Chopped sphagnum and potsherds broken up into small chips should be added to keep the compost open. Pots or baskets are used in preference to blocks of wood, and they are nearly half filled with drainage. The plants should be repotted in March, or sooner if they give evidence of activity. It is usually advisable to repot every year, shaking off the old compost and removing the dead roots.

An award of merit was granted to *Catasetum splendens punctatissimum*, shown on the 9th ult., at the Horticultural Hall, by Sir Trevor Lawrence, Bart., Burford (Orchid grower, Mr. W. H. White). The hooded upper sepal and petals are prettily spotted with crimson on a white ground. The lower half of the flower is of irregular shape, yellow, faintly spotted with crimson.

### A NEW BUDDLEIA.

*BUDDLEIA ASIATICA* is a distinct and beautiful species from India. It bears elegant racemes of white and fragrant flowers. It is a greenhouse plant growing some 3 feet high, and doubtless will become valuable. It was exhibited by Messrs. James Veitch and Sons, Limited, Chelsea, S.W., before the Royal Horticultural Society on the 23th ult., and received a first-class certificate.

## SWEET PEAS.

### POINTS OF INTEREST FOR EXHIBITORS.

**H**OW long is it possible to get flowers of show merit from one sowing? is the first question which naturally springs up. The answer is: all the season. I mean by that, taking the United Kingdom into account, from the second week in July till the end of August. In ordinary seasons the south of England is a fortnight earlier on the average. After August, observations taken for a number of years show that the atmosphere is intermittently charged with damp, and vast quantities of the flowers become spotted and are useless for show purposes. The crimson, mauve, lavender, cream, and pink varieties are most easily affected, and some of them even in the bud state. A late sowing runs this risk, and although a few cuttings of fine flowers is possible it is not worth the trouble. No one can count with certainty on showing satisfactorily at September shows.

**JUDGING.**—At all important shows this should be done by points. The National Sweet Pea Society, of which I am a loyal and devoted member, says: Form and substance, colour and freshness, and attractive setting up should each have a maximum of two points. The first two are all right, but I think arrangement should only have one point. It would be all right if every exhibitor staged and arranged them himself, but nearly everyone gets outside help, and the arrangement of flowers is an art, therefore those securing the services of a floral artist get an undue advantage over those who cannot afford it or who have no friends with the gift. I do think where flowers are so displayed so as to show clearly the quality of each spike, and where there is no doubt about them being the best, arrangement should not be considered; but where equal merit comes in as to quality, then the point for arrangement should settle it. An interesting class might be introduced

at some show for, say, six bunches of defined sorts, and the prizes given for artistic arrangement only. It would be an object-lesson not only to the exhibitors, but to the general public. Floral artists, of course, would judge it. The results of the various points in an exhibit should be placed on cards and displayed prominently. It is done with fruit; why not with Sweet Peas? It would be more interesting and satisfying than the present system. The National Sweet Pea Society consider an ideal bunch consists of twenty sprays, and overcrowding a fault. Intending competitors should note that carefully.

I think it would be a very good idea to make competitors write on each variety card the number of spikes in the vase, not necessarily to be counted, but to give the judges a fair idea of the number of spikes used. Doing so would mean, that suppose a vase of twenty-two sprays of coccinea was shown against a vase of thirty sprays, and the flowers of equal merit and no overcrowding noticeable, a fair-minded judge would consider them equal, as the first-mentioned competitor was keeping close to the society's wishes.

A. MALCOLM.

### SWEET PEAS IN TUBS.

Those whose garden space is limited should grow Sweet Peas in tubs. They do very well indeed, and make a delightful show for weeks together. If you cannot afford to buy the excellent ornamental tubs which are made, cheaper ones can be had. One great advantage of having Sweet Peas in tubs is that they can be moved about and placed just where they can be seen to the best advantage. Last season I had them all along the path of my small garden, and they were greatly admired. Burn one or two holes in the bottom of the tub, drain, and fill to within an inch of the top with turfy soil and well-decayed manure in equal parts. If you cannot get turfy soil, take some of the best soil from the garden and mix sand with it to make it more agreeable to the roots. It is no use trying to grow Sweet Peas in tubs in poor soil—the result will only be disappointment. These plants are gross feeders, and must have rich soil, especially when the roots are restricted to the narrow limits of a tub.

Needless to say, they will require copious supplies of water during the summer, twice a day on the hottest days. The seeds should be sown in March, placing them about an inch deep and 2 inches apart. Although it is not wise to sow thickly, so wasting a lot of seed, it is always wise to sow more than are really wanted; a few can be thinned out afterwards. Sweet Pea seeds are very cheap. I know of nothing more annoying than to have the tub, say, with only half or three-quarters of the number of plants it ought to contain. The plants make a meagre display, and one regrets throughout the summer not having sown more seeds in the tub. Sow only one variety in each tub, and the general effect will be much better than if the colours are mixed.

H. W.



*BUDDLEIA ASIATICA.*

(A greenhouse shrub newly introduced

from India. Slightly reduced.)

## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

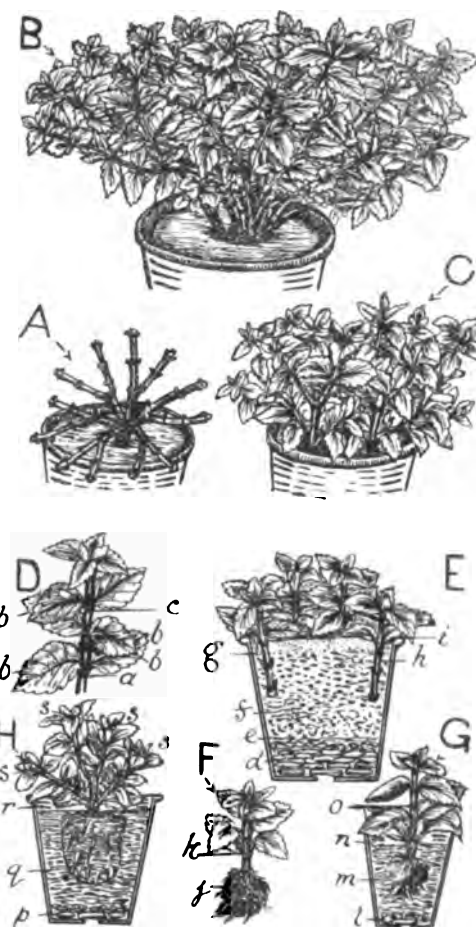
**RAISING AGERATUMS FROM CUTTINGS.**—A, plant in 6-inch pot that has been reserved at bedding-out-time and grown through the summer, and not allowed to flower, the flower-buds being pinched out as they appeared, taken indoors before frost, and placed in a position where there is plenty of light and the temperature not falling below 40°; keep on the dry side until November, when out the old growths well back and remove the old withered leaves, when the plant will be something like that figured. Keep on the dry side till new growths begin to push, and in the New Year place in a house with a temperature of 55° to 65°, affording moisture corresponding to the growth. When the young growths are 1 inch long the plant may be transferred to an 8-inch pot, and a number of growths will soon be forthcoming for cuttings and in succession for some time. B, plant in 8-inch pot, with growths at stage for detaching as cuttings. C, pot of cuttings inserted in late summer for stock, five or six at sides of a 6-inch pot, wintered in a light position in house with a temperature of 40° to 45°, points pinched out at second joint, and in spring affording a batch of cuttings, as shown, that may be readily struck on a hot-bed. If stock plants placed in heat in January a succession of shoots may be had for propagating. D, a detached shoot suitable for a cutting: a, point of cutting transversely; b, leaves to be removed; c, depth of inserting in soil. E, section of 6-inch pot showing insertion of cuttings: d, drainage; e, layer of moss or rougher parts of compost; f, soil (old turfy loam three parts, leaf-mould one part, and sand one-sixth); g, surfacing of silver sand; h, cuttings properly inserted; i, space for holding water in watering. F, rooted cutting as removed from cutting pot, each cutting with a portion of soil as well as whole of roots: j, ball of soil and roots; k, depth of potting. G, rooted cutting properly potted into 3-inch (60's) pot: l, drainage (crook) over aperture and a few small pieces to make level, or a little of rough of compost; m, soil; n, space for holding water in watering; o, point where shoot may be pinched to induce a bushy habit, and to give a cutting. H, stopped plant from 3-inch shifted into 5-inch pot: p, drainage; q, soil; r, space for holding water in watering; s, points of shoots that may be pinched out to induce a more branched habit, or when long enough taken for cuttings. If such plants be shifted into larger size of pot as soon as full of roots, and so on until in 10-inch or 12-inch pots, fine specimens are had for greenhouse decoration, affording good drainage at the last shift and a richer compost, say, three parts turfy loam, one part each leaf-mould and old cow-manure, with one-sixth of sharp sand and charcoal. Plants for bedding should be kept in small pots and gradually hardened off for planting out in June. Cuttings of all varieties strike readily in heat, best with gentle bottom heat.

**Mustard and Cress.**—In some establishments Mustard and Cress are always in demand. Sow them separately. Shallow boxes of 24 inches by 12 inches by 3 inches deep are suitable. Well drain and fill the boxes with fine soil that has been passed through a half-inch mesh sieve. Sow the seeds fairly thickly, give the boxes a good watering, with a fine rose to the water-pot, then place the boxes in a temperature of about 55°.

Cover the boxes with paper until germination has taken place, then bring them to the light. The seeds should on no account be covered with soil. The salad should be ready to cut in seven or eight days after sowing, and to ensure a regular succession a sowing should be made each week. Any crops in the ground, such as Winter Spinach, Carrots that were sown in July for using in their small state, Parsley, &c., will require looking over for weeds, for though it is mid-winter, weeds are sure to grow, especially groundsel, which will thrive, blossom, and seed even now; hand-weed and hoe when the weather will allow. Spinach is plentiful with us this season, and though we have had much rain,

is required, a sowing may be made in boxes, placing the boxes in a cool position; the young plants may then be transplanted when ready into a warm border.

**Work among the Chrysanthemums.**—Before continuing the culture notes about the cuttings inserted in January, I would add that it is not too late to put in others; in fact, some of the sorts which are apt to come too early and are at their best in October are, of the two, better if left till a few weeks after the main lot are started. Examples of these are Miss E. Fulton, Mrs. Greenfield, Mrs. G. Mileham, Mafeking Hero, Miss M. Ware, and Mrs. Hadaway. By the first week of this month the cuttings, which for a time looked limp, begin to grow. After allowing more air in the boxes for a day or two, they may be taken out and placed on a shelf in the open greenhouse. They will not all root at once, however, and a few may be taken out at a time. As soon as all are fairly rooted, or perhaps before, the earliest will need a shift, and may be put into 3½-inch pots. Prepare a compost of three parts loam, two parts leaf-mould, one part manure, and about one and a-half parts of coarse sand and fine old mortar rubbish, mixing these ingredients thoroughly. When potting, besides the piece of crook over the hole put a few small bits of mortar. Knock out the cuttings (henceforth to be termed "plants"); break the ball of soil in half, with a plant to each; and here I might say, do not be particular in transferring all the old soil with a view to not disturbing the roots. The old soil is sour, and without breaking the roots much of the sour soil may be picked off. The pot should be about one-third full when the plant, with its tender roots spread carefully out, is put in, and then add the remainder of the earth, leaving the soil a quarter of an inch below the rim when pressed about as firmly as recommended for cuttings. When potted they should be watered freely; they will require little more for a few days, unless possibly on the following day if the compost was rather dry. A slight flagging in the sun does no harm. Pot the earliest first, and continue until all are finished. In a light, airy position of the greenhouse the plants will quickly begin to grow. Avoid over-watering, and use the syringe in the morning only. With a frame the great difficulty will be the cold, but sunny days are coming. Barely has the last plant become sufficiently rooted and potted on before the early ones will need a shift into 4½-inch pots. First have new or clean pots. The compost now should be richer: Four parts loam, pulled to pieces, not sifted; three parts leaf-mould, one part manure, one part of old mortar rubble sifted through a fine sieve, and half of sand, with a 4½-inch potful of ground bones, and a dust of soot per bushel will be rich enough. The pots may be crooked as before, only on a larger scale; place a few of the larger pieces of turfy material over the mortar, and upon these a little fine soil. Knock out the plant, pick out the pieces of mortar, and spread out the loose roots. It is more convenient to cut a stick with one end just broad enough to pass easily between the old ball of soil and the pot sides. By filling in the new soil all round and gently ramming with the stick the pot is quickly filled to the required level, say, to within half an inch of the rim. Place the plants back in their old quarters for a day or two after giving a good watering. The



RAISING AGERATUMS FROM CUTTINGS.

there is as yet no sign of the disease in the leaf. In picking Spinach in winter be careful not to damage the centre of the plant. The Prickly is perhaps the most serviceable variety for the winter, but always grow a few rows of Spinach Beet, which sometimes stands inclement weather better than ordinary Spinach. If

Parsley is running short through having been picked hard, lift some of the roots carefully, clean off the old leaves, and plant on a mild hot-bed, when young, fresh leaves will soon begin to grow; or if some seed be sown in boxes and placed in a brisk heat it will soon germinate. Where ground is naturally cold, and early Parsley

plants will now begin to be worthy of the name, and must be moved from the greenhouse into a frame. Transfer the strongest plants from the house to a bed of sifted ashes put in the frame. Have them far enough apart so that every pot can be easily seen to ascertain if water is needed. All the leaves which were on the cutting at the time it was taken should be pulled off. Do not do this until there are plenty of new upper leaves, but, providing these are sufficient, remove the others; every little bit should be burnt to prevent the possibility of rust.

*A Winter-flowering Rhododendron* may, perhaps, sound something like a myth, but it is nevertheless true that *Rhododendron nobleanum* bears its welcome red flowers in the middle of winter. We received recently a truss of bloom from a garden in Scotland, and a plant is now in flower in the Royal Gardens, Kew. Of course the flowers are liable to be spoilt by frost, but anyone having the necessary space required by a *Rhododendron*, and a fairly sheltered spot would find *R. nobleanum* well worth growing.

*Bulbs in Fibre.*—Those readers of THE GARDEN who are growing bulbs in fibre (how to do so was fully described in these columns a month or two ago) will now be watching their rapid daily progress with much interest. I have several pots and vases full of the Chinese Sacred Narcissus (*N. Tazetta*), which I have found one of the best for this method of culture, although lots of the trumpet Daffodils, and many of the smaller-flowered section of *Narcissus*, grow equally well. The plants are now developing their flower-buds, and in a few weeks' time I hope to have them in full flower. Mine have been grown in a room window facing south-west, so that they get almost all the sun there is at this time of the year. I have always given them as much air as I possibly could, taking into consideration the weather conditions. I now put them out of doors on the window-sill every day, when the weather is not very cold or windy, and the rich green colouring of the leaves shows how well they like fresh air. Some are growing in plant vases with no holes at the bottom, and some are in ordinary flower-pots. All are growing well. The only difference between them is that those in the flower-pots take more water than those in the vases. I have Snowdrops also growing in a similar manner, and they, too, will soon be in bloom. These bulbs have required comparatively little water so far, but now they need a good deal more, as the sun is gaining power.—W.

*The Conservatory against the House.*—A greenhouse—often dignified by the title of conservatory—without any arrangement for heating is frequently attached to a dwelling-house, usually badly situated for light and air, while the structure is considered more from its external appearance than suitability for growing plants. Where such exists, if in a shaded position—as too often happens—there is nothing that will give so much satisfaction as a collection of the more vigorous forms of hardy Ferns, and in this way we have seen a house, that for the cultivation of flowering plants was a decided failure, transformed by the more robust forms of hardy Ferns into a charming addition to the dwelling-house. In the case of any of these conservatories favourably situated for light and air, so that flowering plants may be grown therein, frost can be excluded by one of the several forms of oil-stoves specially made for the heating of greenhouses.

*Pruning Bush Apples and Pears.*—This may be conducted on the same lines as laid down for wall trees. The leading shoots of those that have reached their limits will require shortening back to three or four buds, any branches that are becoming too close together being entirely removed. Young bushes should be so pruned as to leave only sufficient shoots to form the foundation of

the future tree, shortening the leaders from a third to half their length. Study each variety carefully as to its habit of growth; those with a tendency to upward growth, as, for example, Apple Duchess of Oldenburg, should have their leaders cut back to a bud pointing outwards, and any with a pendulous habit, such as Ecklinville, to a bud pointing towards the centre of the tree. Some varieties of Apples are prone to set fruit-buds on the points of their young shoots; these should be retained where practicable, and cut back the following autumn. The above remarks apply equally to espalier trees.

*Birds in the Garden.*—A good deal has been written on this subject from time to time, various and widely different opinions having been expressed. I think bullfinches may be considered the most mischievous of all birds in the garden, for they utterly destroy the fruit-buds of Apples, Pears, Plums, Gooseberries, and, indeed, many other trees and shrubs. Some seem to think that the birds only attack the delicate buds, but that is not so, for I have seen promising trees utterly cleared of healthy buds, with the result that no blossom appeared at all. It is a shame to have to shoot these pretty birds, but there is no other alternative if a good fruit crop is desired. The best time to keep them down is during the autumn, when they may be more easily approached; but they should be harassed until the fruit trees are in blossom. Sparrows do a great deal of damage, and especially to seeds, Peas, and also to fruit-buds. Blackbirds are extremely troublesome during the summer, for if allowed they will attack the fruit in a most persistent manner. In a wet season, when there is a liberal supply of worms and slugs, they will not attack the fruit trees so constantly. It has been said that the harm these birds do during the summer is counteracted by the number of grubs and insects they destroy; but, nevertheless, I am in favour of reducing them as much as possible.—J. G.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**I**N THE HARDY FLOWER BORDER many plants are becoming active. English and Spanish Irises are growing freely. *Primula denticulata* is already flowering, whilst *P. rosea*, *P. cashmiriana*, *P. frondosa*, *P. farinosa*, *P. capitata*, *P. sikimensis*, and others planted in groups on a moist, shady border are promising a wealth of blooms a little later. These will now require attention. Carefully remove the old decayed leaves that were Nature's protection during winter. This class of plant will be greatly benefited by a slight top-dressing of sifted soil and wood ashes. Take advantage of a fine day to clear hardy flower borders of all weeds and rubbish that have accumulated during winter, as the borders will now begin to brighten with a few spring flowers. It is always a delight to the flower gardener to see the days lengthen and brighten, as with joy we welcome the Aconite, Snowdrop, *Scilla sibirica*, *Chionodoxa Luciliae*, *Iris reticulata*, and other harbingers of spring. In warm, sheltered borders or nooks these will now be flowering, to be closely followed by the Daffodils, *Narcissus minimus* leading the way. This brave little Daffodil is a perfect treasure, generally seen flowering in February in a setting of snow.

**DAFFODILS.**—*Minimus*, *Cyclamineus*, *nanus*, *Angels' Tears*, and minor are the connecting links between the finer species and the host of magnificent varieties that flower later. The best place for Daffodils, from an artistic point of view, is, without doubt, naturalised in the grass, but assuming a collection of the best varieties is grown with a view to the production of fine

blooms, borders set apart for their culture are best. A liberal sprinkling of wood ashes will be of much value to them now. Let it lie on the surface until all the bulbs have pushed through the earth; then, on the first favourable occasion, loosen the surface of the border with a hoe. By this means the wood ashes will be incorporated with the surface soil. Daffodils dislike strong manures, but extra fine blooms and sound bulbs are produced by the application of good wood ashes.

**HARDY SPRING PLANTS** used for bedding that were planted last October now require attention. The weather having been open and mild, these have been growing freely. Pick off all decayed leaves, and press the soil firmly round the roots of any that may have become loosened by frosts. Assuming that the reserved garden contains a surplus of plants such as *Arabis*, *Alyssums*, *Aubrietia*, *Forget-me-nots*, *Daisies*, *Primroses*, *Polyanthuses*, and *Wallflowers*, any vacancies that have occurred in the spring beds should now be filled without delay.

**FLOWERING SHRUBS.**—A splendid lot of shrubs, all flowering together at this early date, several plants of each grouped in a large bed, are *Andromeda japonica* and *floribunda*, and *Rhododendron praecox*. Although the flowers of the latter are tender and sometimes perish with frosts, we may have no frosts during its flowering period, when it delights us with a profusion of small lilac blooms. To all having the advantage of peaty soil I strongly recommend this trio of evergreen flowering shrubs. The various coverings that were recommended at the beginning of the year as protection to any shrubs considered tender, should be removed if fine weather prevails, so that the plants may receive plenty of light and air. Although it is advisable to be on the safe side, protection is often carried too far, and many good plants are ruined by coddling. If the protecting materials are kept close at hand, they can be very easily put on again at the least suspicion of the recurrence of sharp frosts. G. D. DAVISON,

*Westwick Gardens, Norwich.*

### ORCHIDS.

**MILTONIAS.**—*Miltonia vexillaria* and the beautiful hybrid *Miltonia blueana* (*vexillaria* x *Roezlii*) are very free-growing and free-blooming plants, which are seen to advantage each year in nearly every Orchid exhibit at the Temple show in May. Growers differ with regard to the time of repotting. Some advocate the autumn, while the majority prefer to repot them when the young growth commences to root about the present time. I do not think the time of repotting matters much so long as the roots are active, but it is rather a matter of management afterwards. *M. vexillaria* is a surface-rooting Orchid, and for that reason shallow pans without side holes are preferable to pots in which to grow them. Providing they were not repotted in the autumn, they should be attended to now. Place from 1 inch to 2 inches of crook or chopped Fern rhizomes at the bottom of the pan, and then work between and around the roots firmly a compost consisting of equal parts *Polypodium* fibre and sphagnum moss cut up together, and work in some small crook and silver sand during the operation. Prick in some living heads of moss on the surface, which should be just below the level of the rim of the pot. For a few weeks little water is needed at the root; spray the plants overhead occasionally when the weather is bright, and syringe frequently between the pans. When the roots have taken hold of the new compost water should be given more freely; on no account should the plants be allowed to suffer from lack of moisture at the root when in full growth. They should be grown in a light position where a temperature of 58° to 60° is maintained, and protected from bright sunlight. When the flowering season is passed they should be given a short rest by placing them in a cooler and drier



atmosphere and keeping them drier at the root until new growth commences. *M. blueana* should not be submitted to the cooler treatment during the resting season, otherwise its needs are the same.

Few people grow the beautiful *M. Roesslii* and its variety *alba* really well; but the scent of the flowers alone is enough to recommend them. They should be grown in a shady position in the East Indian house. They require abundance of atmospheric moisture, but care must be taken not to give too much water at the root. Any plants in active growth should be repotted if the compost is at all decayed. Use the same compost as advised for *M. vexillaria*, and pot firmly. Stage the plants in the position advised, and put some sphagnum moss between the pots; this will tend to keep the atmosphere humid, and less direct watering at the root will be needed. Remove the flower-spikes from small or weakly plants.

*M. SPECTABILIS*, *M. CANDIDA*, *M. RUSSELLIANA*, and others of the creeping rhizome section should also be repotted as the roots appear at the base of the new growths. Three or more pieces should be fixed in a pan with the new growth towards the centre. Keep the rhizome just on the surface, as though the plant were creeping naturally, and pot firmly with the same compost as previously advised. *M. Regnelli*, *M. Bluntii*, *M. Clowesii*, &c., require much the same treatment. Thrips often attack them; these should be prevented by fumigating lightly with XL All Vaporiser every third week. W. H. PAGE.

*Chardwar, Bourton-on-the-Water, Gloucester.*

### KITCHEN GARDEN.

**ROTATION OF CROPS**—That there is no hard-and-fast rule to guide in the rotation of crops in the kitchen garden goes almost without saying; many things having to be considered, such as the texture of the soil or soils and the size and requirements of the garden. At the same time, a few general rules may be observed with advantage in assigning the various crops to their respective places. It should always be the aim of the cultivator to alternate as far as possible a surface-rooting crop, such as the Brassicas, Peas, Beans, &c., with a root crop, such as Beet, Parsnips, and Carrots, though with judicious manuring the same crop may be grown for a number of years in succession on the same ground. Potatoes, Roots, Asparagus, and Celery should have the lightest and finest soil, whilst Peas, Beans, Brassicas, &c., will succeed where the ground is heavier. Avoid as far as possible having the same piece of ground cropped two winters in succession; endeavour to have at least every second winter for trenching the land and allowing it to remain bare. Roots such as Carrots, Beet, and Parsnips should always be cultivated in well-worked land, to avoid forking in the root.

**CABBAGES**.—In suitable weather fill up any gaps that may be found in the beds of autumn-planted Cabbages. Weed and hoe deeply between the plants, and make firm with the foot any that have been loosened by the wind.

**ASPARAGUS**.—Asparagus can be easily forced where a good heat is at command, a bottom-heat of 75° with a top-heat of 65° being suitable. Lift and place the roots closely together in the prepared place, cover with fine soil to a depth of 3 inches or 4 inches, and give a good watering with tepid water to settle the soil among the roots.

**PEAS**—When the land is in a workable condition a sowing of early Peas should be made without delay. Choose a fine day, and either rake or lightly fork over the ground in good time in the morning to dry. The rows should not be closer than 4 feet from row to row. I make a practice of sowing the earliest Peas wide enough apart to allow for planting three or four rows of early Potatoes or Cauliflowers between the rows of Peas. By having the rows 6 feet apart, a sowing of Spinach can be made between them. The first sowing should be made a little thicker than the later ones. I prefer Veitch's Selected Early for first crop, with William I. as a succession. Ventilate freely Peas in pots, but avoid cold draughts at all times.

Though moisture-loving plants, Peas will quickly suffer if over-watered. Support the growths in good time with sticks.

**GENERAL REMARKS**.—Overhaul the different stocks of roots, removing those showing signs of decay. Bring into the vegetable shed enough to last for a week at a time. Onions that are softening should be used first. Sort Pea and Bean sticks into different sizes. Brooms, labels, stakes, &c., can be made, and sheds cleaned out and whitewashed in bad weather.

*Bryanston Gardens, Blandford.*

J. JAQUES.

### FRUIT GARDEN.

ASSUMING that the bulk of the pruning and training has been completed, attention should now be given to the application of insecticides. If an effective winter dressing is applied the growths will be better able to withstand the attacks of the various blights to which fruit trees are subject. As a winter dressing to remove moss or lichen fresh slaked lime reduced to a fine paste with water and syringed on the trees is found to answer the purpose very well. Paraffin emulsion and various other advertised remedies are good. Now that the systematic winter washing of all fruit trees is conceded to be essential, several preparations have been placed on the market and have proved a great boon. They consist principally of caustic soda and potash, and the manufacturers give full details as to the proportions to use. Half a pound each of caustic soda and caustic potash, with a quarter of a pound of black treacle, in five gallons of water (rain water is best) make an excellent wash for destroying mosses and lichens, and with them the eggs of the codlin moth, red spider, &c. If an ordinary garden syringe is fitted with a spray nozzle it will suit very well when the trees are not large or numerous, but for real practical work spraying machines are necessary. These are fitted with long tubes for reaching tall trees, and, being erected on wheels, are easily moved from place to place. One enterprising firm whose price list I have before me are offering these machines for hire at a very reasonable charge. Great care must be exercised in the use of this caustic solution, and gloves should be used. Spray only when the trees are dry and the day calm. Thoroughly wet every part of the branches, but do not allow much of the liquid to run down the trunk to the roots.

**VINE BORDERS**.—Renewing Vines and Vine borders occupies the attention of gardeners from

time to time, and as the planting of these (if planting canes are to be used) will not be undertaken for at least a month yet, the borders if made now will have had sufficient time to get warmed thoroughly before the planting takes place. Much has been written on the subject of Vine borders and their construction, and a great diversity of opinion exists. In an ordinary-sized modern vinery the root room is generally ample without having recourse to external borders, and where an inside border of 10 feet to 12 feet wide and from 2 feet to 3 feet deep exists, I would dispense entirely with the outside border. The first thing to be considered in renewing the border is drainage; this should be lifted, cleaned, and relaid, covering the entire width with a layer of freshly-cut turf, grass side down. The



THE WHITE BROOM (CYTISUS ALBUS).

Vine is by no means fastidious, provided it can have a regular supply of fresh food. The compost should consist of two-thirds good fibrous loam, the fibre of which will not readily decay; the remaining one-third should consist of lime rubble, road scrapings, and wood ashes, adding 10 lb. of crushed half-inch bones to each ton of the mixture. Chop the turf into rough squares, mix well, and throw into a heap for a week before using.

If the border is from 10 feet to 14 feet wide, only half of it should be filled up at a time, using whole turves to build a retaining wall as the work proceeds. See that the new border is made thoroughly firm, putting in a layer of soil not exceeding 6 inches at a time, and

packing layer after layer as firmly as possible until the desired height is attained.

THOMAS WILSON.

Glamis Castle Gardens, Glamis, N. B.

## TREES AND SHRUBS.

### THE HARDY BROOMS.

**P**ROBABLY no hardy plants are more showy in their season than the various species, hybrids, and varieties of *Cytisus*, with their multitudes of small pea-shaped flowers ranging from pure white to deep golden-yellow in colour, and borne by plants varying from a few inches to 6 feet or more in height. They are especially suitable for dry, sunny spots, the thin, wiry roots penetrating deeply, and finding sufficient moisture where a surface-rooting plant would probably die.

For planting on rockwork there is the bright yellow *Cytisus Ardoi* from the Maritime Alps, which flowers during April and May; *C. frivaldskyanus* (*schipkensis*) from the Balkans, with white flowers, a dwarf and very floriferous species; the hybrid *C. kewensis* (*C. Ardoi* × *albus*) with creamy white flowers opening in May; *C. purpureus*, from Eastern Europe, with purple flowers; and *C. scoparius* var. *pendulus*, a form of the common Broom with pale yellow flowers, and of a strong, spreading habit. These five plants are also suitable for dry, sunny banks, as well as for the rockery, the first two being of a dwarf, compact habit, and spreading slowly, while the three latter are more vigorous, and ramble about freely. For planting in the shrubbery, or for making beds on grass, several Brooms are very effective. Good ones are *C. albus* (the white Spanish or Portugal Broom), with pure white flowers opening in May. This is a strong and fast-growing plant, attaining a height of 15 feet with age, and flowering profusely every year. *C. austriacus*, from Eastern Europe, bears clusters of bright yellow flowers, which have an added value from the fact that they are not produced until July and August, when outdoor-flowering shrubs are rather scarce. *C. nigricans* grows about 3 feet high, and is covered with bright yellow flowers from July to September. The plant is of bushy habit, and very floriferous. It is a native of Europe. *C. praecox* (*C. purgans* × *albus*) is a dense-growing plant, with slender, arching shoots, covered in April and May with sulphur-yellow flowers. It is a plant that does not get leggy, and for beds, or as isolated plants, it cannot be surpassed. *C. scoparius* (the Common Broom) is too well known to need description, but for dry banks or the edges of woods it is an invaluable plant, with its masses of bright yellow flowers in spring. Like many other native plants, however, it is often neglected or overlooked for spots where it would be very effective. *C. n. var. andreaanus* is a form with brownish-crimson and yellow flowers, which are very beautiful. *C. n. var. sulphureus* (Moonlight Broom) is a pale yellow-flowered form which is not often seen, though it is a very old variety, and forms a pleasing contrast to the deep yellow forms or the crimson and gold of *C. andreaanus*.

Mention must also be made of the Spanish Broom (*Spartium junceum*), which during late summer and early autumn is a striking plant, with its comparatively large golden-yellow flowers, faintly fragrant and freely produced. Under favourable conditions it attains a height of from 8 feet to 10 feet, but is rather thin in habit, so that it should be planted in a mass. The majority of these Brooms are easily propagated by seeds, which are abundant, and germinate readily. The exceptions are the hybrids and varieties, which must be increased by cuttings, as seeds are liable to produce either the parent plants or the type species, as the case

may be. The only really difficult one to propagate is *C. andreaanus*, which will not come true to any appreciable extent from seed, and when struck from cuttings is liable to go off suddenly after a year or two through the base of the stem rotting. It is more satisfactory when grafted on *C. scoparius*; the practice of working it on the *Laburnum* is a bad one, as the plants are very short-lived, though they grow freely. Brooms are difficult to transplant, so that they should either be grown in pots until planted permanently, or, what is better, be kept transplanted annually in the open ground either in early autumn or late spring. The tall-growing forms require cutting down for the first two or three years to induce a bushy growth.

Bagshot, Surrey.

J. CLARK.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**IPOMŒA RUBRO-ŒRUBULA (Tokhees).**—Though this *Ipomœa* has in some cases succeeded out of doors within the London district, several failures have come under our notice. The exceedingly vigorous growth of your plants raises at least a certain amount of doubt whether they were true to name. Sow the seed at the end of March in a warm greenhouse. As soon as the first rough leaf is developed they should be potted off singly into 3-inch pots, using a compost made up of loam, leaf-mould, and sand, afterwards shifting them into 5-inch pots. Care must be taken that the atmosphere of the house is not too dry. The plants must be gradually hardened off, till by the end of May they should be in a cold house. Plant out the second week in June at the foot of a warm sunny wall. Give fresh soil; loam, well-decayed manure, and leaf-mould. Plant very carefully, preserving the roots. In the evenings of hot days syringe the foliage.

**CHRISTMAS ROSES (Tempus fugit).**—You have evidently not found the right position for your *Hellebores*. They enjoy a deep, rich loam, well cultivated, and should be planted in a partially-shady position. These plants take naturally to some soils, and do exceedingly well without any attention, while in other gardens, with every care bestowed upon them, they refuse to flourish. Where good loam is obtainable manure is not essential, and it is probable that too much has been used in your case. When it is used it should be thoroughly rotten, and placed well below the plants. The best time to plant is just after the flowers are over, when they may be taken up and divided. The ground should be well dug to a depth of over 2 feet, placing the manure, if used at all, at the bottom. If the soil is too retentive, and likely to get sour, mortar rubbish may be used, but it would not be advisable in light soils. Put the plants in firmly, and keep them well supplied with water during

dry weather. They must not be expected to flower freely till they have become well established. Liquid manure may be used when the plants are making their growth. Exposure in the open tank should soften the water to a great extent. Ammonia is sometimes used for softening water to the extent of a teaspoonful to a gallon of water, but this would be detrimental to plants.

**BULBS AND SWEET PEAS (A. H.).**—There is no reason why you should not grow Sweet Peas two or even more years in succession on the same ground, providing—and this is important—that it is well manured. The Sweet Pea likes a rich soil, and without this it rarely gives satisfaction. You will see, therefore, that you cannot very well grow Sweet Peas to be successful among the bulbs. With the Peas you would have to dig the ground and manure it. This, of course, you cannot do so long as the bulbs are there. If you intend to leave the bulbs in the ground, the best thing will be to grow some annuals, although even these repay a well-prepared soil; they are more likely to succeed among the bulbs than Sweet Peas or perennials. Such things as annual *Chrysanthemums*, *Marigolds*, *Rose-mallows*, *Collinsias*, *Candytuft*, *Clarkia*, annual *Larkspur*, or, in fact, almost any of the annuals. When planting a mixed border it is always advisable to plant the perennials first, afterwards filling in with bulbs. As your bulbs are planted indiscriminately your best plan will be to grow annuals.

**FLOWERS IN THE NORTH (L. M.).**—1. In the border facing west by south you might grow any of the hardy perennials, such as *Delphinium*, *Lupins*, *Hollyhocks*, *German Irises*, *Campanula persicifolia*, *Galega*, *Carnations*, *Japanese Anemone*, *Phlox*, *Pentstemon*, *Pansies*, *Violas*, *Michaelmas Daisies*, early-flowering *Chrysanthemums*, *Liliums*, *Dahlias*, and many other ordinary border plants. You should have a good show of *Violas* and *Pansies*—they will grow especially well; in fact, all those named you ought to grow. 2. *German Irises*, *English and Spanish Irises*, and some of the dwarf early-flowering ones, such as *Iris reticulata*, *hastrioides*, and *persica*. 3. Hybrid *Perpetuals*, some of the hardier Hybrid *Teas*, and climbing *Roses* would do well. Among the *Roses* you should have *Caroline Testout*, *Ulrich Brunner*, *Viscountess Folkestone*, *Augustine Guinoisseau*, *La France*, *Mrs. J. Laing*, *Chio*, *Mrs. Sharman Crawford*, *Duke of Edinburgh*, *Captain Christy*, *Gloire Lyonnaise*, *Grace Darling*, *Mrs. W. J. Grant*, *Mme. Abel Chateau*, *Mme. Jules Grokz*, and *Grüss an Teplitz*. 4. On the shady border plant *Day Lilies* (*Hemerocallis*), *Japanese Anemone*, *Scarlet Lobelia*, *L. cardinalis*, *Ferns*, and *Lilium speciosum*. 5. Choose creepers for the verandah from *Clematis montana*, *O. Jockmanni*, *Dutch Honeysuckle*, *Crimson Rambler* and *Aimée Vibert* *Roses*. On the walls, winter and summer flowering *Jessamine*, *Rose Gloire de Dijon* and *W. A. Richardson*.

**5th Place.**—Six good Sweet Peas for small gardens are *Dorothy Eckford*, *Scarlet Gem*, *Gladys Unwin*, *Lady Grisell Hamilton*, *Navy Blue*, and *Black Knight*.

**M. M.**—If you can establish the hardy robust *Nymphæas* such as *N. alba*, *N. Marliacea carnea*, and *N. M. chromatella*, the pond will clear as these *Water Lilies* get thoroughly established; in fact, all water plants help to cleanse the water. A pond having clay sides and bottom usually takes a long time to clear. It is a good plan to cover the sides and bottom with some rather dark soil; the water appears darker and clears sooner.

**Tokhees.**—An extremely difficult matter to advise upon without personal investigation of the bed, its surroundings, and the consistency of the soil. In drier weather the water may, as the nurseryman suggested, give no further trouble, and if in your place we should be inclined to try the bed this year as you originally intended—that is, without taking out the additional 6 inches, and making this up with cinders, ashes, &c.

**Mrs. Dineen.**—For a border in which dwarf *Nasturtiums* will not thrive it is difficult to recommend anything, but the following should do well under the conditions named: *Calendula officinalis* (*Marigold*), *Meteor*, *Orange King*, and *Sulphur Crown*; *Reichscholtzias* of sorts; *Phlox Drummondii* in variety; with *Tagetes signata* and *T. Golden Ring*. We are afraid that the dwarf Sweet Peas will not thrive, as red spider would be likely to trouble them greatly.

**W. R. H.**—Six of the very best varieties of Sweet Peas exclaiming, of course, the expensive novelties to be sent out this year (for the first time) giving a good range of colour are King Edward VII., red; Dorothy Eckford, white; Miss Willmott, orange shade; Lady Grisel Hamilton, lavender-blue; Othello, maroon; and Captain of the Blues, blue. Some of the best Cactus Dahlias are Stella, rich scarlet; J. W. Wilkinson, crimson, tipped with rose; Floradora, deep crimson; Mrs. E. Mawley, yellow; Starfish, orange-scarlet; Mrs. H. L. Brousson, salmon and yellow; and J. H. Jackson, maroon.

### THE GREENHOUSE.

**GERANIUMS DISEASED (M. J. F.)**—We could not find any trace of actual disease in the enclosed plants of Geranium, but the young growths at the points of the branches were exceedingly weak and drawn, as if they were pining for fresh air. Doubtless the trouble is caused by the way in which the house is heated, for you say it is kept at a temperature of 45° to 50° during the day, and hotter at night. This practice of keeping the conservatory hotter during the night than in the daytime is contrary to all the laws of Nature, and is quite sufficient to account for the ill-health of the plants. Again, while a fairly dry atmosphere is very favourable to Geraniums flowering in the winter, the condition that you speak of as very dry may be too much for the welfare of the plants. To flower Geraniums well during the winter, a good light structure, with a free circulation of air when possible, is necessary, and the day temperature may range from 50° to 60°, with a drop to 45° or thereabouts during the night.

**GERANIUMS AND CALCEOLARIAS (Viola)**—The old plants of Geranium will now need a little water occasionally, and as the young leaves develop they should be potted singly into pots from 4 inches to 5 inches in diameter. Loam, leaf-mould, and sand well incorporated will suit them well. After potting they should be kept in a good light position in the greenhouse, and be watered slightly at first till the roots are active, and as the plants grow more may be given. With regard to the cuttings, the month of October was too late to put them in. Had you taken the cuttings in the middle of August, put them into pots or boxes filled with sandy soil made moderately firm, and placed them in a sunny spot out of doors, they would have rooted in three weeks or a month. By the middle of September at the latest they should be removed to the greenhouse. During the winter pick off decaying leaves. The soil should be kept slightly moist throughout the winter. Concerning Calceolaria cuttings, by far the best place for them is a cold frame. Your greenhouse would have been far preferable to the cellar. The cuttings were taken too late. Though Geranium cuttings do best when exposed to full sunshine, those of Calceolarias should be shaded when the sun is very bright.

**F. H.**—Your Streptocarpus will pass the winter well in a minimum temperature of 50°. They must not be dried off, although they need considerably less water in the winter than in the summer. The best soil in which to pot Gloxinias is a light fibrous loam. If you cannot obtain this, leaf-soil and peat in equal parts with plenty of silver sand will be suitable.

**F. E. C.**—We can find nothing the matter with the two Hyacinth bulbs. They seem, however, to have suffered from some check, apparently draught, or perhaps they have been beneath a drip or been syringed too much. We think it would have been well had they been left a little longer in the plunging bed, and then when they were removed to the greenhouse they should have been kept shaded at first and carefully protected from draught or drip.

**CYLAMEN CULTURE (S. W. Slater)**—The Cylamen is one of our finest winter-flowering greenhouse plants, and, judging by what one reads about it, its culture is not at all sufficiently understood. Some of the growers for Covent Garden Market turn out magnificent examples. They sow the seeds about the first week in July, and as soon as the first leaf or two is formed the small plants are pricked out singly into small pots. They will do well in cold frames until the end of September, when they should be placed on shelves near the glass in a greenhouse for the winter. It ought to be a warmer place than an ordinary greenhouse; a temperature of 45° to 60° will answer best if a choice can be had. The small plants should be kept growing during the winter. The large plants are now flowering freely in a temperature of about 60°, with a rather dry atmosphere. The flowers are useful to gather

for bouquets or house decoration. The stems ought not to be cut; it is better to pull the flowers out from the crown of the corolla. If the stems are cut the portions left on the plants will decay, doing considerable damage.

**Garden Hose.**—It would not be true to say that hard water is very injurious to plants in a greenhouse, for undoubtedly the great majority of plants grown in greenhouses are watered with hard water. It is, of course, preferable to use soft water when it can be had, but it is a matter you need not trouble much about unless the water is exceptionally hard. In that case you should have a tub placed out of doors, leaving the water exposed several days before using it. This will have the effect of softening it to a certain extent. If, however, this would not be practicable you need not trouble about it.

**Mrs. Firth.**—We think that probably your Ixias were much over-watered before they were properly rooted. This would account for the tops decaying; or you may have given them rather too warm and moist a temperature, for the Ixia may be grown even out of doors in the Southern Counties. You should pot the bulbs earlier, say, in late July or early August. They will then have a longer season of growth before the winter, and will, of course, become well rooted. Very careful watering is needed till the pots are full of roots. You have evidently given them the proper soil, although you do not say how much manure was mixed with it. Cow-manure may have been used in too large proportion.

### ROSE GARDEN.

**ROSE W. A. RICHARDSON (W. W. J.)**—This Rose has a grand constitution. It will grow and bloom most freely on its own roots in bush form fully exposed to the eastern gales, continuing to flower late in the autumn. Whether grown on a wall or in the open it must not be cramped for room, neither must it be overpruned. The weaker growths, especially those from the centre of the tree, should be duly thinned and the head generally balanced, but nothing further. It will succeed well on a comparatively light soil, which is an additional good trait in its character.

**PLANTS AMONG ROSES (G. Henry)**—If your Roses were planted last autumn, or even if they are planted now, you ought to get a fair amount of bloom during the coming summer. Still, the plants will not have made much growth, and we think you will be quite right in filling the beds with some low-growing plant. Perhaps the most suitable for this purpose is the Viola or tufted Pansy; there are now many beautiful varieties of this flower fully described in any nurseryman's catalogue, and they make a lovely display throughout the summer and autumn, and are ideal plants for your purpose. You should try to arrange the colours so that they do not clash with the colours of the Roses above. You would, of course, have to obtain small plants of these. Suitable annuals for sowing in the beds are Mignonette, Virginia Stock, Swan River Daisy, dwarf Candytuft, Nemophila, and Nigella.

**S. F. D. S.**—You should have no difficulty in choosing a Rose suitable for growing up the wall, providing the latter gets a certain amount of sun. It is almost impossible to expect a Rose to grow and flower satisfactorily in a town garden that gets absolutely no sunshine. Probably Reine Marie Henriette or Gloire de Dijon would do as well as any; the former is red and the latter creamy yellow.

**Mrs. Dineen.**—We think the position named by you would be most suitable for Rose Lady Gay, and when once it has become established it will form a beautiful feature in the garden. It should be planted at least 3 feet from the trunk of the Apple tree, but as the branches of the latter are within 3 feet of the ground there will be no difficulty in supporting the shoots of the Rose. As the soil around the Apple tree is sure to be impoverished by the roots of the tree, a hole 3 feet deep and 2 feet wide should be made, and filled in with good turfy loam of a holding nature, with which some well-decayed manure has been incorporated. This being carried out, no liquid manure will be needed this year, but if the Rose does well an occasional watering with it next year will, in all probability, be helpful. A sunny spot will suit it well.

### FRUIT GARDEN.

**MORELLO CHERRIES (M. T.)**—Morello Cherries succeed well in every aspect, whether on walls of gardens or buildings, and such may be met with from the Southern Counties of England to the Northern parts of Scotland. We suppose Morello Cherries are planted on northern aspects generally because the fruiting is more certain, and, we may add, the fruit is more valuable. We have not, however, seen such large Morello Cherries on south walls anywhere as on northern aspects, especially

in English counties where lime and chalk abound in the soil, such as in some districts of Wiltshire and Oxfordshire. In Scotch gardens generally Morello Cherries are more fruitful on southerly aspects. We have seen in a yard enclosed by four walls in the centre of a Fifeshire town a Morello Cherry tree which was loaded with finely-coloured and highly-flavoured fruit every season. The roots were embedded firmly in stony ground and covered with causeway.

**PRESERVING GOOSEBERRY BUDS (S. S.)**—The enemies of these fruits are already on the move. The finches and sparrows since the late frost have redoubled their attacks, and in gardens where the trees are away from the usual paths or in isolated corners, they soon cause great havoc, entirely denuding them of their buds and causing loss of crop. Dressing with limewash or lime and soot is out of the question in some gardens, as, though it may deter the birds for a day or two, they soon commence again. A temporary fence of 1-inch mesh wire netting, 3 feet high or more, according to size of trees, supporting it with a few stakes, and then covering the trees with stout tanned netting, we have found useful. The netting may be supported with a few light cross rods, Bamboo canes answering admirably. The materials come in useful for protecting the ripe fruit. There are also other purposes during the summer to which the wire may be put, and if rolled up neatly and kept under cover when not in use, it will last many years.

**Nemo.**—It is impossible to say where you failed in budding the Plums and Apricots, but from your note you do not appear to have tied the buds securely in their place; at least, it seems to us that the continual enlarging of the aperture is only to be accounted for in this way. The Custard Apple is a native of the tropics, and therefore requires the temperature of a stove to grow it successfully. It needs a fairly holding yet well-drained soil, and a liberal amount of atmospheric moisture.

**Nemo.**—The Japanese Persimmon, to which we suppose your question refers, may be trained to a south wall in the favoured parts of the country, but elsewhere it needs greenhouse protection. It may be grown in a large pot or tub, or, better still, planted out in a bed in a sunny greenhouse. It is not absolutely necessary to bud or graft the plants in order to induce them to fruit, but the Japanese cultivate a considerable number of fruiting varieties, which are, like our Apples, all increased by grafting. Still, in the case of a Persimmon raised from seed, the quality of the ripened fruit would be an open question.

### KITCHEN GARDEN.

**CARDON (R. Macaulay)**—Thorough blanching is necessary to bring out the delicacy of flavour of the Cardoon. It is better to have small heads well blanched and crisp than it is to have large rank ones half blanched and consequently tough. The blanched stalks or rims of the inner leaves are chiefly used as a winter vegetable, as well as the main root, which is thick, fleshy, tender, and of an agreeable flavour. Cooked in a delicate way it is excellent. The degree of tenderness to which it is boiled should be studied, and the sauce should not be rank with salt and spice.

**SPROUTING POTATO TUBERS (Hertford)**—It is extremely interesting to find in a Cambridge local examination paper a horticultural question. It would seem that the examiners are gradually becoming practical. It is advised that Potato tubers purposed to be planted be set up in shallow boxes some time beforehand to enable them to sprout in full light and air, for several reasons. First, by so sprouting them it is possible to see whether the tuber is sound or diseased. If the former the sprouts, although perhaps there are at first but one or two, are thrown out strong and sturdy. If the tubers be diseased either the sprouts are weak or the eyes have become blind. All such tubers should be rejected. Second, it is possible by colour and character of sprout at once to determine whether all the tubers of one assumed variety be true to name or otherwise. Third, sprouting in ample light has the additional and important advantage of rendering it needless to plant so early, the sprouts presenting fully three weeks

growth. Hence planting need not be done until later than is usual, when the soil has become warmer and danger from late frosts is past.

**CROPPING GROUND (E. R. B.).**—Work your soil by trenching it to its full depth of 2 feet, leaving the bottom soil in its place, but well breaking it up. By doing that and putting a dressing of manure 12 inches deep between the upper and the lower spits of soil to attract roots downwards, you will do wonders almost to enable crops in the summer to withstand hot sunshine. Also plant or sow, as far as possible, all crops from east to west, as one row at midday helps to shade the soil next it. If you can afford to place a mulch, or coat of long manure, between rows of crops, especially Peas and Beans, early in the summer, do so. A good early Potato for you is Sir John Llewellyn, and a good late one is Up-to-Date. If you prefer both late ones have the latter and Factor. These, if grown in quantity, should be in rows 2½ feet to 3 feet apart. We do not approve of mixing crops together, as it interferes so much with proper cropping. Keeping every thing fairly thin, even in seed sowing, and the hoe constantly used in the summer to stir the surface of the soil between all crops, are of great service.

**PARNIPS AND LEEKS (Hortus).**—Where these are still in their growing quarters and the ground is wanted, they had better be lifted, removed to some convenient spot, and laid in to their full depth, afterwards being covered with litter. Where roots of any favourite Beet are being saved for seed, they should be clamped if this was omitted in autumn, and a good thickness of dry Bracken laid over them. A Seakale pot should be fixed at the top of the clump, being filled with Bracken during sharp weather and kept quite clear when mild, so as to admit air and prevent the tops from growing too much.

**James Garton.**—The beginning of February is a good time to go through beds of winter Spinach, picking off all dead and yellow leaves, removing any large weeds with the hand from amongst the rows, and finally putting the Dutch hoe through the bed. This will admit air and warmth and encourage fresh spring growth. Quarters of Brussels Sprouts, Kale, and Broccoli should also be gone through and all dead leaves removed from the stems. Before digging or trenching any ground it will be better to clear off stumps of Coleworts or other greens rather than dig them in, as they often produce a colony of grubs and injurious ground insects. All Broccoli beds should be examined weekly, and leaves bent down over all forward heads to protect them from frost. Fully-developed heads may be removed with the stems entire and laid in a shelter.

## TREES AND SHRUBS.

**LOROPETALUM CHINENSE (J. J. W.).**—This is a near ally of the Witch Hazels (*Hamamelis*), and, like them, the flowers are composed of four narrow strap-shaped petals, a good deal twisted, and of a creamy white tint. In other respects it is very different from the *Hamamelis*, the foliage being oblong, pointed, and of a deep green. It is also evergreen in character. This *Loropetalum* is a native of China, from whence it was introduced in 1880, but it is at the present day very uncommon. A first-class certificate was awarded to it on March 13, 1894, the flowers apparently having been brought on under glass.

**PRUNING NEWLY-PLANTED SHRUBS (G. T. W.).** The various subjects named by you, being newly planted, should not be pruned in any way, as if left untouched they will recover sooner from the check of removal. The best time to prune them is as soon after flowering as possible; but as during this coming season they will be only partially established, the pruning should be much lighter than in the case of thoroughly-established specimens. For a shelter hedge of *Myrobellia Plum* we should have preferred the plants being in two rows and arranged triangular fashion, thus: \* \* \* \* \*. Then they might be 1 foot apart as you have placed them, with a space of about 9 inches between the rows. Small plants in a single line and 1 foot apart will take a long time to form an effective shelter. In any case they should have a year to become established before cutting them back.

**Enquirer.**—By far the best leaf-mould is made from deciduous trees, but, at the same time, the fallen leaves of

your Yews may be utilised for the purpose provided they are thoroughly decayed, a process that will take a long time.

**Col. Fetherstonhaugh.**—*Cupressus lawsoniana* varies so much when raised from seed that it is often possible to pick out very dissimilar forms to which no varietal name has ever been applied. The specimen from which the enclosed sprays were taken is probably a seedling after the manner of the slender form, to which the name of *gracilis* is sometimes given.

**Mrs. Dineen.**—Both the Ghent and mollis sections of *Asaleas* are quite hardy, though the late spring frosts occasionally injure the blossoms. If you are planting them in a bed or clump, a very good plan will be to use both kinds, as the forms of *A. mollis*, being dwarfier than the others, may be so arranged as to form the foreground of the group. *Asaleas* do well in a sunny position, but must be so situated that the soil is not parched up at any time of the year. A moderately protected rather than a windy position is best for them.

**Puzzled.**—Both specimens are apparently forms of the Scotch Fir, but from a timber-producing standpoint we should prefer the dark one, it being the nearest approach to what is termed the Highland variety, whose timber is much redder than that of the more Southern form, and for durable work consequently more valuable. You question whether the light form is not *Pinus excolas*, but on this point there need be no doubt, as the genus *Pinus* is, by botanists, divided into groups according to the number of leaves in a sheath. In the Scotch Fir the leaves are in pairs, as in both of your specimens, while *Pinus excolas* has (apart from the foliage being much longer and of a decidedly glaucous hue) the leaves in fives.

**Chimonanthus.**—We are inclined to think that your plants have been treated too well, and that the shoots made on account of their greenness have not been properly ripened. You might do some good by root-pruning. To do this you must dig a trench some 2 feet deep about 4 feet away from the wall, and cut back any thick roots you may find going downwards. Relay them in a horizontal position. You do not say anything about the way you have pruned your tree; this may be at fault. The *Chimonanthus* flowers on the previous year's shoots. You must therefore cut them back as soon as flowering time is over; they should be cut back to within an inch or so of the base. If the shoots are very numerous, we should advise you to thin them out so as to allow the others to become well ripened. Do not give any manure.

## MISCELLANEOUS.

**Forester.**—The best papers for advertisements regarding foresters are *Country Life*, *The Field*, and the *Timber Trades Journal*. All these deal more or less with practical forestry. The *Farmer's Gazette* is good, and many articles on forestry have appeared of late in its pages. Regarding British timber the best journal is *Timber News*.

**R. G.**—It is not difficult to keep rats down, both water and land ones. The former are easily shot by approaching them quietly, or they can be caught readily in cage traps baited with fish heads, such as herring. Land rats can either be trapped or ferreted. The main thing is never to permit the rats to become numerous. Immediately it is seen that one or more rats are about take steps to destroy them.

**CYANIDRIC ACID GAS AS AN INSECTICIDE (Mons. F. R.).** We have no experience of the value of this gas as a plant house insecticide, and would greatly hesitate to use so potent an agent for such purposes. Until the effects of any such gas have been tried on plants in a limited way, it would be most unwise to test it in a plant house. Gases are, as a rule, far more dangerous to plant life than are vapours or liquids. The vapour of sulphur coated over hot-water pipes is valuable as a fungicide, but sulphur in combustion evolves gases of the most destructive character. We should be pleased to hear from any reader who may have had experience, as a plant cleanser, of cyanidric acid gas.

**C. Lismore.**—The insect you enclosed is a specimen of the Water Boatman (*Notonecta glauca*). It is a very common insect in ponds, where it may often be seen swimming about on its back. It is said to fly well, but I do not think that I have ever seen it on the wing. What induced it to be flying about at this time of year I cannot say, and I am not surprised you considered it "an unfamiliar object." This insect has a strong proboscis, with which it can give anything a sharp pinch by pressing the point against its chest, as anyone will soon find out if he handles one incautiously. I have often when a boy caught them by tying a small fly to the end of a thread and dangling it on the surface of the water near them. They will hold the fly so tight that they can be pulled out of the water.—G. S. S.

**BASIC SLAG AS A GARDEN MANURE (W. M. C.).**—Basic slag is valuable as a manure only when pure, ground to the finest powder. As it is of metallic origin, it needs to be dressed on the ground a few months before cropping, so that it may have become partially decomposed or soluble. It is best suited for stiff soils, as with these the absorption is quicker. But it is a phosphate only, and whilst good of its kind as such, to properly manure crops other manures, such as kainit (potash) and sulphate of ammonia (nitrogen), finely crushed, should be mixed with it in the following proportions: Basic slag, 6lb.; kainit, 5lb.; sulphate of ammonia, 2lb.; a total of 11lb. per rod. When basic slag is applied in October, as it should be, kainit may be added in February, and the sulphate of ammonia in May, as this latter acts speedily. Dressings of these manures are helpful to any crops, even Asparagus, or for fruits and flowers. But for vegetables they are always most efficient when a light dressing of good animal manure is added to them.

**E. S.—1.** *Cypripedium insigne*. 2. *C. villosum* Boxall. The temperature you have maintained of 45° to 55° is not far wrong; better would be 50° to 60° as minimum and maximum for the winter. The growths sent are healthy, and we should say your inability to develop the flowers is caused by the plants not receiving sufficient light. It is absolutely essential after fogs to cleanse the glass; fogs will cause the buds to wither. A good compost for these consists of equal parts of fibrous loam, peat, and leaf-soil, mixed together with a good sprinkling of coarse sand and small crocks. They should be repotted at once during active growth. When the roots have taken hold of the new compost they take water freely. At no season do they require a drying period like many Orchids, but for a time after potting, especially if your surface with chopped sphagnum, water with discretion.

**NAMES OF PLANTS.—T. Smith.**—1, *Truga hookeriana*; 2, *Sedum rupestris*; 3, *S. sexangulare* var. *boloniense*; 4, *S. album*; 5, *S. ceras*; 6, *Juniperus Sabina* var. *tamaricifolia*.—**C. Oakford.**—*Ornithogalum hibernicum*.—**Pittichry.**—No. 1 is *Cypripedium Acteas* (*C. insigne* sanderi × *C. leucanum*). No. 2 is *C. lathamianum* (*C. epioerianum* × *C. villosum*).—**F. L. H.**—One of the many forms of the wild Daffodil *Narcissus pseudo-Narcissus*.

**NAMES OF FRUIT.—T. C.**—1, *Gloin Morceau*; 2, *Doyenné d'Alençon*; 3, *Mme. Millet*; 4, *Josephine de Malines*.

## QUESTION.

**PRESERVING THE NATURAL COLOUR OF CUT EVERGREENS AND LEAVES OF PALMS.**—Would you kindly let me know the best way to preserve evergreens when cut down, such as Yews and also Palms, so as to maintain their green colour?—CONSTANT READER.

## THE EDITOR'S TABLE.

### WINTER FLOWERS.

"C. C." sends from Hockthorn Hall, eight miles north of Lincoln, a boxful of flowers cut from the open garden on the 29th ult. They are in great variety, and particularly interesting as coming from a Midland garden. Included were *Iris stylosa*, *Aconites*, *Snowdrop*, *Rosemary* in flower, *Wallflowers*, *Hellebores*, *Winter Jasmine*, *Polyanthus*, *Primrose*, *Arabis*, *Gentian*, *Hepatica*, *Cyclamen*, *Aubrietia*, and wild *Violets* and *Pansies*.

### SOME GOOD NEGLECTED APPLES.

From Treliessick, Truro, Mr. William Sangwin writes: "Herewith I am sending you specimens of three sorts of Apples, which I have never seen noticed in any of the gardening papers, and which I think deserve to be better known. No. 1 is *Stoke Edith Pippin*, the most prolific bearer I have ever met with; the fruit if well thinned makes an ideal dessert Apple, both in appearance and size; keeps well to the end of March. The tree is a good grower and free from canker. No. 2, *Tom Knight*, is, I think, a local Apple named after a Cornish nurseryman. The tree is a free grower, free from canker, and a heavy cropper, but requires to be well thinned to get the fruit of good size and colour; keeps to end of March. No. 3, *Duke of Cornwall*, is also a local Apple. A constant and prolific bearer, clean grower, and excellent keeper. Grows most freely from suckers; every branch, big or small, taken off and stuck in the soil will grow and make good-bearing young trees in three years. A most desirable tree for cottagers with small gardens. I shall be glad of your opinion as to quality; I prefer either of them to the much-vaunted *American Apples*.

[We are very glad that our correspondent has brought these Apples to our notice. All three are handsome, well-coloured fruits of medium size. We found *Tom Knight* to be the best eating; in fact, the flavour is not unlike that of *Cox's Orange Pippin*. *Duke of Cornwall*, too, has a most agreeable flavour; both are juicy and sweet. The fruits of *Stoke Edith Pippin* seemed to us to be rather past their best, the flesh being a little "mealy."—Ed.]

### FLOWERING SHRUBS FROM EXETER.

Messrs. R. Veitch and Son, The Royal Nurseries, Exeter, send a collection of flowering shrubs—*Garrya elliptica*, *Erica Veitchii*, *E. coccinodes*, *E. mediterranea hybrida*, *E. carnea alba*, *E. mediterranea glauca*, the delightful little



Honeysuckle (*Lonicera Standishi*), *Prunus davidiana*, and *Saxifraga Salomoni*. We were glad to see the beautiful winter-flowering Heaths, especially

#### ERICA HYBRIDA VEITCHII,

which was distributed by the Exeter firm last spring. An illustration was given of it in *THE GARDEN*, and the following note: "Seen alone when out of flower it might readily be mistaken for a dwarf-growing *E. lusitanica*, but when seen side by side with its parents, *E. lusitanica* and *E. arborea*, it is quite distinct. . . . The flowering period is a lengthy one, for while many blooms open early in March, it is at its best during the month of April, and in mid-May it is still in flower. The flowers partake of the characters of both parents. The corolla is about the same length, but rather wider than that of *E. lusitanica*, and, as in that plant, the flowers are fragrant. In *E. lusitanica* the anthers are dark red or reddish brown, while in *E. arborea* they are bright pink, but in the hybrid the colour is intermediate. The stigma of *E. lusitanica*, again, is red, and very little wider than the style, while that of *E. arborea* is white and flattened out, that of the hybrid being pink in colour, and almost as wide as that of *E. arborea*. Another instance in which characters from both parents are seen is the manner in which the flowers are grouped together, *E. arborea* bearing larger clusters than *E. lusitanica*, *E. Veitchii* being between the two. The leaves more closely resemble those of *E. lusitanica*. At Kew it has been grown for several years, the largest plant being now from 2 feet to 2½ feet high and the same through. Each year it blossoms profusely, and from its behaviour it may certainly be classed as one of the best of the hardy Heaths."

#### FREEASIAS.

From Askham Bryan Gardens, York, Mr. R. Bellerby sends a bunch of excellent *Freeasias* with the following note: "I enclose a few blooms of *Freeasia* for your table. I think you will agree with me when I say that the *Freeasia* is not grown as much as it ought to be. You will notice that one spike has two sprays of bloom, which, I think, is not usual. *Freeasias* last well in the house when cut; they are also very attractive if half-a-dozen good potfuls are placed together in a stand."

#### BULL AND SONS' PRIMULAS.

Messrs. William Bull and Sons, King's Road, Chelsea, have sent a selection of their Primula blooms. There are some beautiful flowers among them; for instance, Blushing Beauty, a new variety with large double flowers of a lovely shade of blush pink. This is a Primula that everyone should grow. Other good ones among the double-flowered varieties are fulgens, rosea, and alba. Fimbriata rubra and fimbriata alba are two beautiful single Primulas. Others worthy of note are Ruby Queen; Village Maid, white, striped with rosy carmine; Comet, carmine-crimson; fulgens, scarlet-carmine; Imperial Blue, a handsome flower; and Countess, a delicate pink-fringed bloom.

#### WEBB AND SONS' CYCLAMENS.

Messrs. Webb and Sons, Wordley, Stourbridge, have sent us flowers representing their fine strains of Cyclamen. The flowers are large and the colouring is rich and distinct. The strains represented are Vesuvius, crimson; Brilliant, blood red; Rose Queen, rose; Mont Blanc, white; and Perfection, mixed colours. We can well understand that a large number of Webb's strain of Cyclamen in flower, as they now are at Wordley, make a brilliant display.

#### EARLY SPRING FLOWERS.

We have received a charming gathering of early spring flowers from Mr. C. O. Stuart, Wootton House. They comprise Hepatica, Winter Aconite, Violets, Snowdrops, Polyanthus,

Pansy, Erica, and Hellebore. The following note accompanied them: "I sent you a few spring flowers for your table last year, and you liked them so well that I am sending you a very few gathered on this last day of January from the open ground."

#### OUTDOOR RHODODENDRONS FROM IRELAND.

From Ballydivity, Darvock, County Antrim, Mrs. E. Stewart Moore writes: "I am sending you a few blooms of Rhododendrons to show you how well they flower in this most northern part of Ireland. The plants are from 10 feet to 15 feet high and have been covered with flowers since the end of November. They have been flowering well here for about twenty-five years, and we have always lovely bunches of flowers to decorate our church every Christmas. I cannot describe how very bright and beautiful these glorious plants look covered with their brilliant blossoms all through the winter. The soil they grow in is clay and peat. The crimson one is called noble-anum, and the largest white and pink is Mrs. John Clutton. I hope these blooms will arrive fresh and in good condition for your table."

[With this note we received a boxful of splendid Rhododendron blooms that, to judge from their size, freshness, and clear colouring, might have been gathered in May. The variety Mrs. John Clutton was especially fine.—ED.]

## LEGAL POINTS.

**TITHES.**—As we have received several communications from readers upon this subject, we think it desirable to insert an explanatory article in lieu of answering their questions. Originally the clergy were maintained by the voluntary offerings of their flocks, but this being a precarious existence they claimed, and in the course of time established, a right to the tenth part of all the produce of lands. The tenth part, known as a tithe, was formerly paid in kind, but this arrangement having been found very inconvenient, both to the landowners and the owners of the tithe, the Tithe Commutation Act 1836 was passed for the purpose of commuting tithes into a money payment, charged upon the lands and known as tithe-rent charge. The tithe-rent charge for each parish was ascertained on the basis of the prices of Corn, Barley, and Oats during the preceding seven years, Wheat being taken at the price of 7s. 0½d. per bushel, Barley at 3s. 11½d. per bushel, and Oats at 2s. 9½d. per bushel. The amount of the rent charge for each parish was apportioned between the various properties in the parish, so that each property became liable for a specific sum, which is not, however, the amount actually payable. This varies from year to year, and is ascertained upon the basis of the average prices of Wheat, Barley, and Oats during the preceding seven years. The average annual prices are published on the first Tuesday in each year in the *London Gazette*. The actual sum payable is arrived at by ascertaining the proportion which the average annual prices bear to the prices of 1835, the rent charge being proportionately increased or reduced as the case may be. The Act assumes that one-third of the rent charge is invested in the purchase of Wheat, one-third in the purchase of Barley, and the remaining third in the purchase of Oats. Below we give the calculation for the present year:

#### SEPTENNIAL AVERAGES PER BUSHEL.

	Ending Xmas, 1835.	Ending Dec. 23, 1905.	
Wheat	7 0½	3 5	£100 result 48 13 3
Barley	3 11½	3 0½	" " 76 16 10
Oats	2 9	2 2½	" " 80 6 1

Divide by 3 ) 205 16 2

£68 12 0½

By the courtesy of the proprietors of the *Church Family Newspaper* we append a table by which

the reader can readily calculate the amount of the tithe-rent charge payable in respect of any property for the half-years ending April 1, July 1, and October 1, 1906, and January 1, 1907:

Nominal Tithe-rent Charge.	Tithe-rent Charge Payable 1906.	Nominal Tithe-rent Charge.	Tithe-rent Charge Payable 1907.
£ s. d.	£ s. d.	£ s. d.	£ s. d.
0 0 1	0 0 0½	0 17 0	0 11 7½
0 0 2	0 0 1	0 18 0	0 12 4
0 0 3	0 0 2	0 19 0	0 13 0½
0 0 4	0 0 2½	1 0 0	0 13 8½
0 0 5	0 0 3	2 0 0	1 7 5½
0 0 6	0 0 4	3 0 0	2 1 1½
0 0 7	0 0 4½	4 0 0	2 14 10½
0 0 8	0 0 5	5 0 0	3 8 7
0 0 9	0 0 6	6 0 0	4 2 3½
0 0 10	0 0 6½	7 0 0	4 16 0½
0 0 11	0 0 7	8 0 0	5 9 9
0 1 0	0 0 8	9 0 0	6 3 5½
0 2 0	0 1 4½	10 0 0	6 17 2½
0 3 0	0 2 0½	20 0 0	13 14 4½
0 4 0	0 3 8½	30 0 0	20 11 7½
0 5 0	0 5 5	40 0 0	27 8 9½
0 6 0	0 7 1½	50 0 0	34 6 9½
0 7 0	0 9 9½	60 0 0	41 3 2½
0 8 0	0 11 5½	70 0 0	48 0 5½
0 9 0	0 13 2	80 0 0	54 17 7½
0 10 0	0 15 10½	90 0 0	61 14 10½
0 11 0	0 17 6½	100 0 0	68 12 0½
0 12 0	0 19 2½	200 0 0	137 4 1½
0 13 0	0 21 10½	300 0 0	205 16 2½
0 14 0	0 23 7	400 0 0	274 8 3
0 15 0	0 25 3½	500 0 0	343 0 3½
0 16 0	0 27 11½		

**Example.**—To ascertain the value of tithe-rent charge of, say, £347 19s. 7d., take the charges for the hundreds, tens, and units of the pounds; then take the shillings and pence separately, and add together thus:

As fixed.	T.R.C. for 1906.
£ s. d.	£ s. d.
300 0 0	205 16 2½
40 0 0	27 8 9½
7 0 0	4 16 0½
0 19 0	0 13 0½
0 0 7	0 0 4½
£347 19 7	£238 14 5½

Thus the tithe-rent charge of £347 19s. 7d. is £238 14s. 5½d.

Many lands have been discharged in various ways from the payment of tithes. Tithes may be owned not only by the clergy, but by the laity. Indeed, about one-fifth of the total tithe-rent charge, which amounts to about £4,000,000 per annum, is payable to lay tithe-owners, who are known as lay impropriators. The charge may be redeemed, usually at about twenty-five times the amount set out in the tithe apportionment. A copy of the tithe apportionment is kept by the incumbent and churchwardens of the parish (or the parish council), the registrar of the diocese, and the Board of Agriculture, 3, St. James Square, London, where they may be inspected. All information concerning the redemption of tithe-rent charge and corn rates, or other payments in lieu of tithes, may be obtained from the secretary of the Board of Agriculture at the above address. Tithe-rent charge is now payable to the tithe-owner by the landlord, and not by the occupier. Any contract to the contrary, made subsequently to March 26, 1891 (the date when the Tithe Act 1891 came into operation), cannot be enforced. In the event of the rent charge being in arrear for more than three months, the owner of the tithe may apply to the County Court judge to appoint a receiver of the rents and profits of the lands liable to be distrained upon for the charge. Where, by a contract dated prior to March 26, 1891, an occupier has contracted with the landlord to pay the tithe, the landlord is entitled to recover from the occupier the amount paid to the tithe-owner, and, if necessary, to distrain for it.

**GARDENER—NOTICE (W. S.).**—If your master has engaged you to stay until March 25, you can leave on that date without notice; but, as a matter of precaution and courtesy, we advise you to write to him at once, stating that you will be leaving his service on March 25 in accordance with the arrangement already made.

**ECKFORD'S GIANT SWEET PEAS**

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Genuine only direct from Headquarters.

50 Seeds each of 12 Finest Giant Exhibition Varieties (separate and named), 2/6 p. st free; or 24 for 5/6.

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**Queen Alexandra**, the Wonderful New Giant Scarlet. Per packet, 2/6. **Henry Eckford**, the Grandest Novelty ever offered. Bright Giant Orange. Per packet, 2/6. **Sybil Eckford**, Beautiful Rich Apricot and Lemon Effect. Per packet, 1/6.

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*Collections for 1906.*

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Special Colour Collection of the Twelve newest and best varieties.

**Crimson** KING EDWARD VII., a superb variety  
**White** DOROTHY ECKFORD, the best white  
**Mauve** MRS. WALTER WRIGHT, a beautiful shade  
**Pink** JANET SCOTT, lovely deep pink  
**Yellow** HON. MRS. E. KENYON, the finest primrose-yellow  
**Lavender** LADY GRISEL HAMILTON, beautiful shining lavender  
**Maroon** BLACK KNIGHT, deep maroon self  
**Orange** MISS WILLMOTT, orange-pink, shaded rose  
**Blue** NAVY BLUE, rich dark violet-blue  
**Rose** LORD ROSEBERRY, a giant-flowered variety  
**Picoles** DAINITY, white, with pink edge  
**Fancy** JEANNIE GORDON, bright rose, shaded cream

12 Packets, 50 seeds in each, for 2s. 6d., post paid.

**COLLECTION No. 2.**

Twelve superb varieties.

**BLANCHE BURPEE**, a fine white variety, of exquisite form  
**SALOPHAM**, deep crimson, tinged with mulberry-red  
**GEORGE GORDON**, bright reddish crimson-lake  
**PRIMA DONNA**, a most lovely shade of soft pink  
**QUEEN VICTORIA**, soft primrose-yellow, overlaid purple  
**LADY MARY CURRIE**, deep orange-pink, shaded rosy-lilac  
**COUNTRESS OF RADNOR**, lavender self, a chaste and lovely flower  
**COCCINEA**, beautiful cerise self  
**DUKE OF WESTMINSTER**, deep rosy crimson, overlaid purple  
**PRINCE EDWARD OF YORK**, scarlet standards, deep rose wings  
**EMILY ECKFORD**, a superb flower, rich corulean blue  
**PRINCE OF WALES**, bright rose self of intense colour.

12 Packets, 50 seeds in each, for 2s., post paid.

**COLLECTION No. 3.**

Twelve superior varieties.

**SADIE BURPEE**, of dainty form, pure pearly white  
**MARS**, bright fiery crimson, deepening with age  
**LORD KENYON**, rich dark rosy-crimson self  
**LOVELY**, soft shell-pink, truly most "lovely"  
**LOTTIE HUTCHINS**, delicate cream, flaked with pale rose  
**GORGEOUS**, standards flaming scarlet, wings magenta-rose  
**COUNTRESS CADOGAN**, dark shining violet-blue, wings lighter  
**STANLEY**, deep maroon self, large and handsome  
**COUNTRESS OF LATHOM**, delicate blush-pink, tinged salmon-buff  
**DOROTHY TENNANT**, puce-violet or rosy mauve  
**LOTTIE ECKFORD**, bluish-white self, edged bluish mauve  
**ADMIRATION**, delicate shade of rosy-mauve or lavender.

12 Packets, 50 seeds in each, for 1s. 6d. post paid.

**COLLECTION No. 1.**

Twelve old favourites.

**DUCHESS OF SUTHERLAND**, pearly-white, delicately suffused pink  
**HON. F. BOUVERIE**, beautiful coral-pink, charming  
**CAPTIVATION**, rosy-purple self, a charming variety  
**VENUS**, salmon-buff, shaded rosy-pink  
**LADY MARY ORMSBY-GORE**, pale buff, overlaid delicate pink  
**TRIUMPH**, bright orange-pink standards, wings purplish  
**AURORA**, flaked and striped salmon on white ground  
**CAPTAIN OF THE BLUES**, bright purple-blue, wings lighter  
**LADY NINA BALFOUR**, delicate mauve, shaded dove-grey  
**MRS. MAJESTY**, rich rosy-crimson self, of fine form  
**MRS. ECKFORD**, large, handsome, pale primrose  
**LADY SKELMERDALE**, rosy-lilac, a distinct variety

12 Packets, 50 Seeds in each, for 1s., post paid.

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All the seed in the above Collections is of the new harvest, having been grown on our Essex seed farms, and carefully hand-picked.

Our book, "How to Grow and Show the Finest Sweet Peas," given gratis with all orders.

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**THE 13 LATEST & BEST NOVELTIES, PER SET, 8/-**

With a packet of **Gilberts' Blue Seedlings** Gratis.

**Evelyn Byatt**, fiery orange salmon (12 seeds), 1/-; **Romolo Pizzani**, true violet blue (10 seeds), 9d.; **Phyllis Unwin**, rosy carmine self (12 seeds), 1/-; **Rosie Sydenham**, rich dark rose (12 seeds), 1/-; **Helen Lewis (Orange Countess)**, orange pink (25 seeds), 1/-; **Helen Pierce**, marbled blue and white (12 seeds), 6d.; **David R. Williamson**, indigo blue (20 seeds), 6d.; **Black Michael**, shining reddish maroon (15 seeds), 6d.; **Bolton's Pink**, pink shaded rose (25 seeds), 9d.; **Dora Broommore**, buff yellow tinged pink (12 seeds), 1/-; **Lady Aberdare (The Fen Queen)**, exquisite soft pink (25 seeds), 6d.; **Gladys Unwin**, pale rosy pink (50 seeds), 6d.; **Scarlet Gem**, dazzling scarlet (50 seeds), 3d.

**GILBERTS' A COLLECTION, 2/6,**

contains the very best 12 varieties for exhibition (50 seeds of each):—Gladys Unwin, Coccinea, Mrs. Walter Wright, King Edward VII., Dorothy Eckford, Lady Grisell Hamilton, Miss Willmott, Jeanie Gordon, Hon. Mrs. E. Kenyon, Black Knight, Duke of Westminster, Gracie Greenwood.

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contains the 24 next best varieties for exhibition:—Gilberts' Blue Seedlings, Scarlet Gem, Mrs. Geo. Higginson (Gladys Deal), Flora Norton, etc.

**COLLECTIONS A & B TOGETHER, 5/-,**

with a packet each of White and Pink Cupid Sweet Pea gratis.

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## HORTICULTURAL MUTUAL IMPROVEMENT SOCIETIES.

WILL you grant me space in your columns to make application to all horticultural mutual improvement societies throughout the United Kingdom for their views respecting the formation of a federation of societies, with a central depôt, by which means the promotion and furtherance of the objects we all have so much at heart could be better undertaken? I would suggest that the following be some of the matters taken in hand by the federation: The interchange of lecturers in districts within a given radius; the formation of societies in districts where at present none exist; an affiliation to a recognised federation, which would create the *locus standi* of each of the societies affiliated; to bring before employers and employes the advantages of these improvement societies, correlative one with the other; to institute a labour bureau for gardeners, with a registration of situations vacant and wanted; the meeting of delegates from each society at a conference held annually, or oftener if desired, when matters relating to their separate societies could be brought forward and discussed. In making the above suggestions I invite correspondence either through your columns, if you have space to spare, or direct to me, addressed as below, from anybody interested in the matter, and I might mention that the society I have the pleasure to serve is in unison with my application.

HARRY BOSHER,  
*Hon. Secretary, Croydon and District Horticultural Mutual Improvement Society.*  
62, High Street, Croydon.

## PRIZES FOR GARDENERS. FEBRUARY.

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA  
are offered for the best essays on  
WINDOW GARDENING.

The essay must not exceed 1,500 words in length. The subject must be treated with the object of showing how the window-box may be kept interesting all the year round. The essay must treat of plants grown outside the window only, and not of plants grown near the window inside the room.

The essay must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than February 28. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

Mr. James Guttridge has been recommended by the Parks and Gardens Committee of the Liverpool Corporation as their chief superintendent. The Liverpool parks and gardens cover an area of about 1,000 acres, and in taking over their superintendence, in place of the late Mr. Herbert, Mr. Guttridge fills an important post. Mr. Guttridge received his horticultural training in, among others, the gardens of the Dowager Countess of Ellesmere, Burnwood House, Cobham; the Royal Gardens, Kew; and Glasgow Botanic

Gardens. Mr. Guttridge has held the post of curator of the Liverpool Botanic Gardens, and deputy superintendent of the parks for the past nine years.

## SOCIETIES.

### NATIONAL CHRYSANTHEMUM SOCIETY.

THE annual general meeting of this society was held at Carr's Restaurant, Strand, on Monday last, the 5th inst., the president (C. E. Shea, Esq.) in the chair.

#### ANNUAL REPORT.

Your committee is again able to report that the society is in the foremost rank of those societies whose speciality is in advancing the culture of some particular flower. Your committee deeply deplore the loss of the late general secretary, Mr. Richard Dean. The usual three exhibitions were held at the Crystal Palace in 1905. A conference on early-flowering varieties was held in connexion with the October show. Arrangements have been made with the Crystal Palace Company to hold three exhibitions at Sydenham in the present year on the following dates: October 3 and 4, November 7, 8, and 9, and December 5 and 6. Following the success of the exhibition of market Chrysanthemums at the Essex Hall in 1904, your committee held a similar show at the French Flower Market, Covent Garden, by kind permission of his Grace the Duke of Bedford, which proved a great advancement, both in the quality of the exhibits and in their arrangement. From a financial point of view it has also been successful, there being a satisfactory balance in hand. Six meetings of the floral committee were held during the season—three at the Essex Hall and three at the Crystal Palace. The number of novelties submitted to the committee has been largely in excess of that for many years past.

In recognition of the valuable services rendered by Mr. G. L. Casellon, superintendent of the Crystal Palace, at the various shows, your committee, on the occasion of the annual dinner, presented him with the society's gold medal suitably inscribed.

The society is in a satisfactory financial condition. The reserve fund amounts to £119 11s. 4d., of which £115 is on deposit.

In moving the adoption of the report, Mr. Shea referred to the great loss the society had sustained in the death of Mr. Richard Dean. He thought that the literature of the society should be improved; they might publish a year-book. Although they must not neglect the exhibitors, they must remember the other members.

Mr. Moorman thought this rather an unfortunate time to begin to extend the society's scope, as they owed £119 7s. prize money. Most of this was owing from the Crystal Palace Company. Mr. Bevan was sure the Crystal Palace Company would pay.

Mr. Taylor, the treasurer, said that the Crystal Palace Company kept promising to pay "next week." The chairman suggested that the prize money be paid out of the reserve fund, and a solicitor's letter should be sent to them if the money was not paid soon. One member called attention to the items for luncheons and refreshments, which he thought were unduly high. Mr. Bevan said that the least they could do for the large number of non-competitive exhibitors was to invite them to the luncheon.

The adoption of the report was carried unanimously. The various officers were then elected for the ensuing year. Mr. Shea said he would accept the office of president for one more year, but it was improbable that he would again preside at an annual meeting, as for reasons of health he would have to winter abroad. In the circumstances, therefore, he thought they ought to have another president.

Mr. C. Bilok and Mr. Lyne retired from the committee. All the outgoing members were re-elected with the following additions: H. J. Jones, W. Wells, Percy A. Cragg, and J. B. Edding.

There was a good deal of discussion concerning decorative classes at the November show, and eventually matters were brought to a climax by the president offering a cup, value three guineas, as first prize for a table to be decorated as the exhibitor thinks best with small-flowered Chrysanthemums. Mr. Harrison offered a second prize of two guineas, and Mr. Williams a third prize of 30s. The institution of this class seemed to meet with general approval. There is no doubt that it will be welcomed by the great majority of growers and flower-lovers who have long wished to see the true decorative value of the Chrysanthemum appreciated.

In order to overcome the difficulty which arose through the committee not having yet appointed a secretary, the following resolution was adopted: "That this meeting stand adjourned to Monday, April 30, at 7 p.m.; and that the executive committee be empowered in the meantime to retain the services of Mr. G. Dean as secretary *pro tem.* until a permanent secretary is elected at the adjourned meeting." The usual vote of thanks terminated the proceedings.

### WOOLTON HORTICULTURAL ASSOCIATION.

THE twenty-seventh annual meeting was held at the secretary's office, Liverpool, recently. Mr. T. Foster was in the chair. The report submitted by the secretary gave the number of visitors to the spring show as: Subscribers, 1,892; by payment, 1,050. Autumn show: Subscribers, 1,654; by payment, 2,624. Total, 7,220. The exhibits were fully up to the average, and the thanks of the society were tendered to the trade for their excellent non-competitive groups. The balance-sheet shows an income from the spring show of £78 14s.; autumn show,

£170 5s. 9d.; subscriptions, £308 11s. 6d.; other items, £24 8s. 11d.; total, £582 0s. 2d. Expenditure: Spring show, £235 11s. 6d.; autumn show, £269 6s. 5d.; general, £83 0s. 2d.; total, £587 13s. 1d.; or a loss on the year's working of £5 17s. 11d., which is fully accounted for by having a two days' spring show instead of one day. The balance in favour of the association amounts to £211 4s. 3d. The usual gifts, to the Gardeners' Royal Benevolent Institution £3 8s., and the Gardeners' Royal Orphan Fund, £2 2s., were passed. The officers, Mr. T. Foster (chairman), Mr. G. Blackmore (sub-treasurer), and Mr. H. Sadler (secretary), 7, Victoria Street, Liverpool, were all re-elected. The secretary was instructed to forward a letter of sympathy to Mrs. H. Herbert, Sefton Park, on the death of her husband. A vote of thanks was accorded to the chairman and committee for their services during the past year.

### HASTINGS AND ST. LEONARDS HORTICULTURAL SOCIETY.

#### LECTURE ON VEGETABLES.

UNDER the auspices of this society a most interesting and instructive lecture was given on the 22nd ult. at the Central Hall, Hastings, by Mr. E. Beckett, Aldenham House Gardens, Elstree. The meeting, which was very largely attended, was presided over by the Hon. Mrs. Freeman-Thomas, and numerous lantern slides illustrating the best types of vegetables were shown, together with some of Mr. Beckett's first-prize collections. Mr. Beckett, who was listened to with keen attention, dealt with the principal vegetables, and in the course of his remarks said "it was the man who made up his mind to win who was sure to succeed. The matter of soil and situation need not stand in the way, perseverance being the principal thing." In addition to the excellent lantern pictures Mr. Beckett had some fine examples of such vegetables as Beetroot, Carrots, Potatoes, and Onions grown at Aldenham. The society have arranged for other lectures to be given by some of the most eminent horticulturists, and we hope that the courteous secretary, Mr. Stevens, may meet with as much success as he did on this occasion.

#### SCOTTISH SOCIETIES.

ROYAL SCOTTISH ARBORICULTURAL.—The annual meeting of this society was held in the Goolld Hall, St. Andrew Square, Edinburgh, on February 2nd, under the presidency of the president, Mr. W. Stewart Forthingham of Murthly. The annual report was submitted by Mr. R. Galloway. It mentioned that the membership now numbered 1,080, a slight increase over last year, and that it had been agreed that the annual excursion this year should take place to Newcastle and district in the beginning of August.

The report of the treasurer and auditor was submitted by Mr. John Methven, and showed that the amount of the funds at the expiry of the year amounted to £1,237 15s. 8d. Both reports were adopted, and the chairman, in moving the adoption of that of the secretary, intimated that it had been resolved to issue the Transactions every six months instead of annually. Office bearers were appointed, and several vacancies in the council filled up. Mr. Stewart Forthingham was again appointed president, and Mr. J. W. McHattie and Mr. D. F. Mackenzie were added to the vice-presidents. The following were re-appointed to their respective offices: Hon. secretary, Mr. R. C. Munro-Ferguson of Nova, M.P.; secretary and treasurer, Mr. E. Galloway, S.S.C.; hon. editor of the Transactions, Dr. John Nisbet; assistant editor, Mr. A. D. Richardson. Several other items of business were transacted, and a lecture on "The Possibilities of Artificial Manures in Forestry" given by Dr. A. W. Borthwick, lecturer on Forestry to the Edinburgh and East of Scotland College of Agriculture. In the evening, a largely-attended dinner was held in the Royal British Hotel, under the chairmanship of Mr. Stewart Forthingham, president of the society. The toast of the evening, "The Royal Scottish Arboricultural Society," was proposed by Lord Ardwall, and among the other speakers was Mr. J. W. McHattie, superintendent of Edinburgh parks, who was called upon to respond to the toast of "The Lord Provost and Magistrates of Edinburgh."

TAYPORT HORTICULTURAL.—The annual general meeting of the Tayport Horticultural Society was held on the evening of the 1st inst., Mr. W. Dawls, sen., in the chair. The usual reports were submitted and adopted, the financial statement showing a balance to the credit of the society. Office bearers were appointed as follows: President, Mr. James Smith, Lynwood; vice-president, Mr. D. F. Wilkie; treasurer, Mr. J. Henderson; and secretary, Mr. W. M. Young; together with a working committee consisting of ten members.

BROUGHTY FERRY HORTICULTURAL ASSOCIATION.—This association held the first meeting of its new session in the British Workman, Broughty Ferry, on the evening of the 30th ult., when there was a good attendance, presided over by Mr. J. W. Laird, the hon. president. The paper of the evening was entitled "Flower Shows and Judges," and was contributed by Mr. James Slater, the president of the association. It was of a concise character, but gave an interesting and valuable summary of the chief points in connexion with the subject. Mr. Slater referred to the educational value of shows, and made special reference to the benefits yielded by the competitions offered for working men and cottagers. The question of judges was also dealt with in a thorough manner, the lecturer emphasising the necessity of securing men thoroughly qualified by their knowledge and character. Mr. Slater was heartily thanked, and a spirited discussion followed.

\* \* \* The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 6d.

# THE GARDEN.

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FEBRUARY 17, 1906.

## SOME BEAUTIFUL ANNUAL FLOWERS

**A**MONG annual plants which can be grown from seeds each year the great diversity of form and colour is such that they play a most important part in the decoration of the garden, either in the form of masses in the flower border, or in broken ground between shrubs that are planted widely apart. Many of them are easily grown and require little attention after the early stages of their existence, and these are amongst the more showy kinds. The effect produced by a broad stretch of such things as the Opium or Caucasian Poppies, *Eschscholtzia*, or *Godetias* in full flower is a most striking one, and when seen is a sight that is not soon forgotten. To produce the best effects many annuals require to be sown in the late autumn, when they form small plants before winter, and in the following spring are ready to push forth their flowers directly the weather is favourable. By sowing both in autumn and in the following spring it is possible to have a succession of many of the individual kinds throughout the whole season. The chief conditions required by annuals are fairly rich, well-worked soil and ample space. Many annuals are sown far too thickly, and are not thinned out sufficiently, the result being thin, weedy-looking plants and flowers inferior in size.

### THINNING

should be done thoroughly, and as soon as the seedlings are large enough to handle. Sufficient room should be given to allow for the full development of each one that is left, and good sturdy plants will be formed. After this operation is performed, little more attention is required, except to keep the ground clear of weeds, and broken up occasionally with the hoe. Watering, however, will be found necessary in dry weather. The foregoing remarks apply only to the dwarf-growing annuals, which require no staking; others, like the Sweet Peas, require sticks for their support, or to be trained over trellis-work and arches, like the Canary Creeper.

The following is a selection of the best and most suitable kinds of annuals for use in large or small gardens.

### SWEET ALYSSUM.

A charming little plant is *Alyssum maritimum*, or the Sweet Alyssum. It is only a few inches high, with sweet-scented white flowers. It is a hardy annual, and comes up freely from seed sown in early spring.

### THE "CHINA ASTER."

The wild type of the "China Aster" is a lovely thing, forming bush-like plants of branching growth, freely furnished with dark green foliage, and producing numerous handsome flowers 3 inches to 4 inches in diameter. These are single, with a golden bronze disc, and ray florets of a pretty mauve shade. It is quite a different kind of plant, of more graceful habit than the stiff and formal China Aster usually seen in gardens. Seeds germinate freely in the open border in spring, and the plants flower profusely in the late summer.

### THE CORNFLOWER.

The Cornflower (*Centaurea Cyanus*) in its various shades of blue, rose, and white, is a popular border plant on account of its easy culture and value for cutting. It is very hardy, and seed should be sown in September, but may be sown now.

### CLARKIA ELEGANS.

This and *C. pulchella* are amongst the prettiest of our hardy annuals. They are natives of California, and produce elegant spikes of large handsome flowers of various shades of salmon rose and carmine, as well as white. Many varieties are also in cultivation with double flowers. *C. pulchella* is distinguished by its deeply-cleft petals, and both grow 1½ feet to 2 feet high. Seeds may be sown in the open in March.

### COLLINSIA BICOLOR.

A graceful annual growing about 1 foot high, with rose purple and white flowers. Seed sown in the autumn produces plants which flower in May, while spring-sown seedlings flower freely in summer. The best species for autumn sowing is *C. verna*.

### CORRIPSIS TINCTORIA.

This family contains several annuals of garden value, of which the most useful is *C. tinctoria*. This grows from 2 feet to 3 feet high, and if the seedlings are well thinned out it forms a handsome branching plant and produces numerous crimson-brown

flowers tipped with orange-yellow. It will thrive almost anywhere, and lasts a long time in bloom.

### ANNUAL LARKSPURS.

These are attractive summer bedding plants, and are most effective in borders and planted on the fringes of shrubberies. They germinate freely in the open if sown in March, and there are numerous varieties, some with Stock-like flowers and of dwarf habit, while others are more branching and of taller and more graceful appearance. They last a long time in bloom, especially if the seeds are sown in the autumn.

### THE CALIFORNIAN POPPY

(*Eschscholtzia californica*) is an annual of striking character, with glaucous leaves and richly-tinted orange and yellow flowers of large size. The plants average about 1 foot in height, and produce their Poppy-like flowers freely through the summer months. Seeds may be sown either in August or September for early summer flowering, while those sown in the spring form a succession. Many varieties are offered in catalogues, from rich glowing orange to rose and white shades of colour.

### GILIA TRICOLOR.

A dwarf plant, with lavender and white flowers having a central violet ring. Also belonging to this genus are the so-called *Leptosiphons*, of which there are several species, including *G. androsaceus*, *G. aureus*, and *G. densiflora*, all charming little annuals of easy cultivation.

### AN EVERLASTING.

A splendid border annual with everlasting flowers is *Helichrysum bracteatum*. The flowers are of great value for winter decoration. It grows about 3 feet high, and the seeds may be sown in the open in May.

### HELIPTERUM MANGLESII (RHODANTHE).

A charming half-hardy annual, valuable both for the border and for winter decoration when dried, as the flowers are everlasting. The seed should be sown in May on a warm border. It grows about 1 foot high, and produces its flowers of bright rose and white very freely.

### IBERIS (CANDYTUFT).

Dwarf plants of compact growth and very free blooming. They come up readily from



seed sown in March, and soon reach flowering size, remaining in full beauty for a long time. For massing in flower borders and beds, and also for edgings, they are greatly valued.

#### SWEET PEA.

This is perhaps the most popular annual in cultivation. The range of colour is very extensive, and the plant has been greatly improved of late years by careful selection and cultivation. It repays well any attention given to it. Sweet Peas require a deep rich soil, and a good plan is to open a trench about 1 foot wide and equal depth, placing in the bottom about 3 inches of well-rotted manure, with about 3 inches of fine soil on the top. Upon this the seeds may be sown either in autumn or early spring, covering them to a depth of about 3 inches. As the young plants grow the trench may be gradually filled up with good soil. As a cut flower for indoor decoration the Sweet Pea is highly prized for its brilliant and delicate colours, as well as for its fragrance.

#### THE ANNUAL LUPINS

are graceful plants, very effective for borders, the best of which are *L. luteus*, *L. mutabilis*, and *L. subcarneus*. W. I.

(To be continued.)

### RECENT PLANT PORTRAITS.

THE second number of the *Revue Horticole* for January figures the well-known New Zealand half-hardy shrub

*Veronica hulkeana*, of which an accurate portrait appeared in 1864, on plate 5484, in Vol. XC., of the *Botanical Magazine*. The new portrait of this beautiful and most free-blooming shrub is, unfortunately, quite untrue to Nature, making the colour of the flowers blue instead of purplish lilac, as anyone acquainted with it or comparing it with the above-mentioned plate can see at once for themselves. The *Botanical Magazine* for February has portraits of

*Eulophia Nuda*. Native of India and China. This is a bright and beautiful terrestrial Orchid bearing tall spikes of rose-coloured flowers, somewhat resembling in general appearance those of a *Calanthe*.

*Saxifraga scardica*. Native of the Balkan Peninsula. This is a very pretty little mossy Saxifrage with pure white flowers.

*Iris siehiana*. Native of Asia Minor. This is a low-growing bulbous Iris with brownish flowers of not much beauty, having little to distinguish them from those of *I. persica*, save their colour.

*Lonicera pileata*. Native of Central and Western China. This is apparently a free-blooming Honeysuckle with bunches of small, pure white flowers.

*Prunus triloba*. Native of China. This is a very free-blooming single-flowered Plum, with blush-pink flowers. It is more often seen in gardens in its double-flowered form, and is generally known under the synonym of *Amygdalopsis Lindleyi*.

The first number of the *Revue Horticole* for February figures

*Rose Mme. Abel Chatenay*, a beautiful hybrid Tea raised by M. Pernet-Ducher of Monplaisir, Lyon. Its parents are Docteur Grill and Victor Verdier.

The February number of *Revue de l'Horticulture Belge* figures

*Maranta insignis* syn. *Calathea insignis*. This is a handsome foliage plant, which requires the temperature of a stove house.

W. E. GUMBLETON.

### PRIZES FOR GARDENERS. FEBRUARY.

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA  
are offered for the best essays on  
WINDOW GARDENING.

The essay must not exceed 1,500 words in length. The subject must be treated with the object of showing how the window-box may be kept interesting all the year round. The essay must treat of plants grown outside the window only, and not of plants grown near the window inside the room.

The essay must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than February 28. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

### NOTES OF THE WEEK.

#### FORTHCOMING EVENTS.

March 3.—French Horticultural Society's Meeting.

March 6.—Royal Horticultural Society's Meeting; National Amateur Gardeners' Association's Meeting.

March 7.—Sheffield Horticultural Society's Meeting; Lewes Horticultural Society's Meeting.

March 12.—Annual Meeting of the United Horticultural Provident Society.

March 14.—Sheffield Chrysanthemum Society's Meeting; East Anglian Horticultural Club's Meeting.

March 20.—Royal Horticultural Society's Colonial Fruit Show (three days).

#### The Royal Horticultural Society.

The annual meeting of the Royal Horticultural Society, of which a report appears on another page, was held on Tuesday last in their hall in Vincent Square, Westminster. The annual report shows that the society still continues to make good progress. The number of Fellows is now over 9,000, and it is hoped that it will be made up to 10,000 by the end of this year. It is satisfactory to learn that the new hall lets well for concerts and various other meetings, for receipts from this source will help to pay the heavy ground rent and rates. The society has held many splendid exhibitions during 1905, and the programme for 1906 is even more comprehensive. We are glad to see that the summer show will again be held at Holland House. Quite a novel feature in the exhibitions for 1906 will be one solely of table decorations to be held in June. An important international conference on plant-breeding commences on July 30, and continues for four days. The society is to be congratulated on the position it holds and maintains, and the continued progress which attends the efforts of the council, the secretary (the Rev. W. Wilks, M.A.), the superintendent (Mr. S. T. Wright), and the clerical and the garden staff.

**An early Potato show.**—We have received particulars of an early Potato show and inspection of trials to be held at Dobbie's Seed Farm, Marks Tey, Essex, on Wednesday, August 1 next. These will be organised and conducted by Messrs. Dobbie and Co., Rothessay, and Mr. T. A. Scarlett, Edinburgh. Fifty-five

pounds will be offered in prizes in nine classes. Full particulars may be had from Mr. W. Cuthbertson, Marks Tey.

**The late Mr. H. G. Moon's pictures.**—Many friends of the late Mr. H. G. Moon have expressed the wish that an opportunity should be afforded to those who were interested in his work of seeing such of his paintings and sketches as remained in his possession at the time of his death. Mrs. Moon has therefore arranged that a selection of these shall be on view at his studio, The Camp, St. Albans, from Thursday, the 15th inst., to Tuesday, the 27th inst., inclusive, between the hours of 11 a.m. and 5 p.m.

**Large Parsnips.**—At this season of the year, when growers are planning the ground for future crops, many give Parsnips early attention, as it is thought necessary to obtain roots as large as possible. This latter in a private garden I do not think at all necessary. After considerable attention both to variety and early sowing, I have found the small shorter roots with scarcely any core, grown in a much shorter time, are much better. To get roots of the latter early sowing is not necessary. In the South and Western part of England April and May are quite early enough. To get the best flavour the roots should be left in their growing quarters as long as possible, and lifted as required for use. If the latter is at all difficult it is an easy matter to clamp or store in the open. When this is done the quality is much better. Roots at all shrivelled, and in a dry, warm store, lack flavour; they are bitter at times and soon grow out. If the ground is much infested with wire-worms, slugs, or worms, a liberal dressing of wood ashes, burnt refuse, or lime will clear the enemy.—G. WYTHE.

**A pretty Cape annual (*Diascea Barberae*).**—I should like to mention the above as a charming little plant from the Cape, of very easy culture, and well worth a trial by anyone who has not yet come across it. The habit of the plant is dwarf, 4 inches to 6 inches high, but spreading. The flowers are profusely produced about 3 inches to 4 inches above the leaves, and are of a beautiful and rather uncommon shade of apricot. It flowered continuously for from two to three months with me last year. Most of the seedmen seem to catalogue it as a half-hardy annual. Annual it certainly is not, and as it has stood this past winter of mingled frost and wet in several exposed situations without harm and in continuous growth, one might almost regard it as hardy. The original plants have increased greatly in size, and have also sown themselves extensively. My soil here is certainly rather light, but the plant has shown itself as possessing all the vigour and hardiness of an indigenous weed.—M. H. C., Cullompton, Devon.

#### Precocious Summer Snowflake (*Leucojum aestivum*).

—For the last two years I have contributed notes on the behaviour of some extraordinarily precocious bulbs of *Leucojum aestivum* in my garden. This year they were even more forward, as they commenced to bloom in the first week of January, and the flowers are now faded. Curiously enough, these bulbs, which I have had for fifteen years, remained flowerless for many seasons, but three years ago began blooming, greatly to my surprise, in the untimely month of January. This habit now appears fixed, as for the past three seasons they have flowered at the same period. This year they produced about three dozen flower-scapes. By the side of these precocious bulbs I have a plantation of the normal, late-flowering type, the leaves of which are now only 2 inches above the ground. These bloom at the ordinary season. I cannot remember where I procured the bulbs, nor can I imagine what has produced this extremely-early flowering, and no similar instance has been brought to my knowledge.—S. W. FITZHERBERT.

**Annual report of the National Potato Society.**—This interesting and valuable publication is now ready, and can be obtained, price 6s., post free, from the hon. secretary, Mr. Walter P. Wright, Postling, Hythe, Kent. The reports of county trials, and of the conference on Potato diseases, are of special importance.

**The double-flowered Kerria.**—*Kerria japonica flore-pleno* (the double-flowered and the commonest form of *Kerria japonica*) has merits for greenhouse decoration which are too often overlooked. In the temperate house at Kew there are now some large bushes freely sprinkled with their clusters of double golden-yellow blossoms, like richly-coloured Roses, which are conspicuous against a background of dark foliage. It is rarely that the name of this *Kerria* occurs in lists of plants suitable for forcing, but the fact that it was in full flower in the first week of February, combined with its richness of colouring, should lead to its merits in this respect being more fully recognised.—T.

**The British Gardeners' Association.**—We have received a copy of the rules of this association to be submitted for approval at the annual general meeting to be held on Wednesday, May 30 next. There are altogether some sixty rules, together with eight recommendations to members, who are requested to note that these recommendations are not binding, as rules are. The report of the committee of selection, submitted to the annual general meeting on June 1, 1905, is published. This states that "the want of faith among the gardeners themselves is most deplorable, but it has to be overcome, and there is every reason to believe that it will disappear as the objects of the association become better known." A full list of members of the association is published. Full particulars may be had from the hon. secretary, Mr. John Weathers, Talbot Villa, Isleworth.

**A new Freesia.**—There is the making of a good, if not a valuable, new forcing plant for winter use in the excellent cross-bred kind which Mr. F. Herbert Chapman of Rye has raised by the inter-crossing of *F. refracta alba* and *F. aurea*. It is called *F. Chapmani*. If Mr. Chapman will permit me to say so, I think the weak point in his new plant—at least, for the moment—was chiefly centred in the endeavour to exhibit it in a forced condition, and, of course, the month of January is "early" from every point of view, and possibly a little too early for a new *Freesia*. Hence, as presented to the floral committee on the 23rd ult., the newcomer did not look its full worth. In all probability, had the plant been more coolly grown, and exhibited in February or March, its good qualities would have been more apparent. Even now the plant is important as a stepping-stone to something better, and possibly another generation of hybrids or cross-breeds will give the best results. In *F. Chapmani* the yellow and orange shades are not very decided, and possibly another touch of *F. aurea* may be worth while. Meanwhile, I am not unmindful of the exceptional vigour of the above, and trust decisive colouring and strong fragrance may soon be added thereto.—E. J.

**A new early-flowering shrub.**—The introduction of *Foraythia europæa* a few years ago caused keen interest among growers of trees and shrubs on account of its being a European species of a genus which had hitherto only been met with in China. Although its flowering at Kew in March and April, 1905, was the first time its blossoms had been seen at Kew (and I believe I am correct in saying that it was the first time it had bloomed in England), it was not the first time that cultivated plants had bloomed. Plants in the Arnold Arboretum, U.S.A., flowered a year previously, and one or more illustrations were then given of the shrub. Botanically it differs from the other species by its thicker, somewhat smaller, narrower, and shorter-stalked

leaves, more erect habit, and rather long hooks to the seed capsules. Considered from a gardening standpoint, it does not grow so rapidly, is inclined to form a lot of short spurs instead of very long branches, and the leaves are a different shade of green. The flowers are yellow, borne during the latter part of March and April, and do not differ in any marked degree from the others. For several years at Kew it grew badly, and last year a few flowers only were borne; during the summer, however, very satisfactory growth was made, which is now thickly set with flower-buds, and the bushes suggest that it will become as popular as its predecessors. The largest Kew plants are now 4½ feet high, and good bushes. The home of the species is Albania, and it was first introduced in 1899.—W. DALLIMORE.

**Deutzias in Mr. Gumbleton's garden, Belgrove, Queenstown.**—The following species and hybrids of *Deutzia* are in this famous garden: Species—*D. scabra vera*, *D. Vilmorinae*, *D. Myriantha*, *D. parviflora*, *D. Sieboldi*, and *D. discolor purpurascens*. Hybrids—*D. floribunda*, *D. grandiflora*, *D. major*, *D. gracilis campanulata*, *D. carminea*, *D. eximia*, *D. multiflora*, *D. rosea*, *D. venusta*, *D. robusta*, *D. Lemoinei* (type), *D. Avalanche*, *D. Boule de Neige*, *D. rosea*, *D. compacta*, *D. Fleur de Pommier*, *D. corymbiflora*, and *D. kalmiflora*—twenty-four in all.

**Royal Horticultural Society's show of table decorations.**—While there can be no doubt that the exhibition of table decorations, bouquets, &c., to be held by the Royal Horticultural Society, at the Horticultural Hall, on June 20 next, will attract wide attention, and especially that of ladies, it is noticeable that the council, in arranging the schedule of classes, has severely limited the range of material that can be employed on the tables. Thus no ribbons, coloured paper, mirrors, or similar adjuncts will be permitted, the object being evidently to treat the decorations as floral solely, which is the right thing for a Horticultural Society to do. But it is equally probable that these exclusions are also intended to keep down cost or ostentatious display, and that pure floral beauty allied to simplicity shall be the dominant features. Table decoration, by the aid of flowers, should be such as persons of moderate means can indulge in as freely as the rich; hence the cheapness of the decoration should, if allied to real floral beauty, weigh well with the judges. It is greatly to be hoped that such will be the case.—A. D.

**An ideal fountain Rose.**—Next to the Garland, which perhaps is one of the best varieties to grow as a real fountain Rose, I should be inclined to name *Aglaia*. Set a plant out on the lawn well isolated, tie its growths up to a stake the first year, and prune very little. Subsequent growths are allowed to grow at will. In three or four years a perfect drooping specimen is the result. Unfortunately this sort is shy blooming for the first three years, but after that, if the growths are opened out to admit light and air, it will blossom as freely as any other Rambler. Another excellent Rose for the same purpose is *Polyantha grandiflora*. To form a fountain Rose take four short stakes, say about 5 feet high, and place them around the bush, having them facing north, south, east, and west. Take four growths and tie them out to each of the four stakes; this will form the basis. The growths, instead of being tied upright, are just supported in their centre so that their extreme ends droop to the ground. After a year or two the stakes may be removed as the plants will not need their support.—P.

**Fifty good decorative Chrysanthemums.**—The following is a good selection of fifty *Chrysanthemums* for culture under glass for decorative purposes. Twenty Japanese: Bronze Soleil d'Octobre, bronzy yellow; Charles Davis, rosy bronze; Dorothy Seward, terra-cotta;

Edith Shrimpton, white; Framfield Pink; Godfrey's King, reddish cinnamon; John Shrimpton, bright red; Kentish Yellow; Louise, peach pink; M. Chenon de Leche, chestnut-red; Miss Nelly Pickett, creamy white; Mme. Gustave Henri, ivory white, green in bud; Phœbus, clear yellow; Soleil d'Octobre, bright yellow; Source d'Or, orange and gold; Vivand Morel, deep mauve; W. H. Lincoln, yellow; William Seward, deep crimson; William Tricker, rose; and Yellow Source d'Or. Six incurved: Empress of India, pure white; Golden George Glenn; Jardin des Plantes, rich yellow; Mrs. G. Rundle, pure white; Mathew Russell, reddish mahogany; and The Colonel, chestnut-red. Six pompons: Mme. Marthe, pure white; Mlle. Elise Dordan, silvery pink; Snow-drop, pure white; Victorine, chestnut-brown; William Kennedy, crimson-amaranth; and William Westlake, golden-yellow. Six recurved: Chevalier Domage, bright gold; Cullingfordi, crimson-maroon; Dr. Sharpe, magenta-crimson; Emperor of China, white; Golden Christine, golden-buff; and Orange Annie Salter. Six single: Buttercup, yellow; Ladysmith, pink; King of Siam, crimson; Mrs. J. French, pure white; Mary Anderson, blush; and Scarlet Gem. Six Anemone: George Hawkins, golden-yellow; La Marguerite, reddish violet; Snowdrift, white; Eugène Lanjaulet, yellow; Firefly, red; and Mme. Montels, white.

**The Sweet Sultan for cutting.**—*Centaurea suaveolens* is always much appreciated for cutting, and the bright golden yellow flowers last well if kept quite dry. Last season we saw other additions to these useful flowers. Messrs. Jarman and Co. of Chard, Somerset, exhibited several distinct coloured varieties at the Royal Horticultural Society's meeting on August 1. A pure white variety named The Bride received an award of merit. The Bridegroom, which was of a delicate shade of mauve, or heliotrope, was also worthy of note, though it failed to gain an award. I refer to these now, as it is the best time to sow the seed. Sown in boxes or pots and planted out later they come into flower rather earlier than when sown in the ground. There will, however, be no risk in sowing in the open ground any time when the weather is favourable. For all who require cut bloom for the summer months the *Centaureas* are valuable. I think I have previously referred to the fault of wetting the blooms, but this will bear repeating. I have heard so many complaints about the flowers not lasting, and in each case I have been assured that they have been kept moist, which is the surest way of making them go off quickly.—H.

**A new Coleus.**—The new *Coleus shirensis* from British Central Africa gives promise of making a useful addition to winter-flowering greenhouse plants. Seeds of it were forwarded to Kew from Lomba, by Mr. J. McCloanie, in 1902. From 2½ feet to 3 feet in height, it branches freely if the points of the shoots are removed two or three times during the growing season. It produces an inflorescence from nearly every growth. The square stems are thickly covered with dark brown spots. The leaves average 6 inches in length and 4½ inches in width. A curious perfume is exhaled from them, especially if rubbed between the thumb and finger. The inflorescence is terminal 6 inches to 8 inches in length. Thickly covered with buds which open in succession, each inflorescence lasts a long time in flower. The colour of the flower is two shades of blue, the upper part being much lighter than the lower. Although not such an intense and striking colour as *Coleus thrysoides*, the habit of the plant is more pleasing. Readily propagated by cuttings, it can be grown in a cool greenhouse all the summer. During winter it thrives better in an intermediate house till the flowers begin to open. A number of plants are flowering freely in several of the houses at Kew.—A. O.

## THE ROSE GARDEN.

### MOSS ROSES.

**I**T seems strange that such an interesting group of bush Roses should receive so little consideration. It cannot be that they are not valued, because a common expression one hears at the exhibitions is, "Where are the Moss Roses; are they not grown now?" The fact is, the craze for perpetual-flowering Roses and the great advance in the Hybrid Teas have to some extent crowded out the Moss and other beautiful Roses. For their association alone there should be a bed or border of Moss Roses in every garden. The plants should be on their own roots—that is, raised from layers, a mode of propagation which admirably suits them. A few of the freer-blooming sorts do well as standards or half standards, but the majority should be grown in bush form.

Moss Roses pay for rich culture, that is to say, well-tilled ground and manure freely applied. An open spot is essential, for if treated as shrubby Roses green fly and other pests are troublesome.

#### PRUNING MOSS ROSES.

Moss Roses should be pruned rather close unless it is desired to grow them as a low

hedge, one or two sorts, such as *Blanche Moreau*, being particularly suited to this mode of culture. When planted for this purpose leave the plants a good length the first season, say 2½ feet to 3 feet high. Subsequent prunings will be more on the close-pruning plan which we adopt with the Hybrid Perpetuals. As single or isolated bushes the Moss Rose is pretty; in pillar form it is also good.

The so-called perpetual-flowered sorts are almost a misnomer, the blossoms after July being few and far between, and what there are do not shine when there is such a galaxy of beauty all around.

#### THE BEST MOSS ROSES.

A dozen of the best sorts to grow are: *Blanche Moreau*, *Celina*, *Common*, *Comtesse de Murinais*, *Crested*, *Gloire des Mosses*, *Gracilis*, *James Veitch*, *Little Gem*, *Mme. Edouard Ory*, *Salet*, and *White Bath*. There is a novelty of last season named *Venus* which is very promising. P.

### ROSE FRAU LILLA RAUTEN- STRAUCH.

**THE** marvellous free-flowering character of this beautiful Rose should commend it to all who cultivate Roses for the garden. It is beautiful both in form and colour, and is suitable for exhibition. Perhaps under glass we see the beautiful colouring to perfection. Here there is developed quite a rich Apricot yellow, not so marked upon the blossoms produced outdoors, unless it be towards autumn. The form of this Rose is very regular, there being that charming circular arrangement of the petals so much admired. The general effect of the mass of bloom would be flesh white, for it is only in close examination we see the other lovely tints that this Rose possesses. It is a good grower, and that should be remembered when making up an order for garden Roses. One gets tired of the dwarf, stumpy growers of the *Mildred Grant* type, however glorious the bloom may be.

The Rose under notice was the result of a cross between *Caroline Testout* and *Goldquelle*. It

partakes largely of the sturdy vigour of the first-named, the pollen parent evidently giving, as it generally does, the beautiful colouring. *Goldquelle* was produced from *Kaiserin Augusta Victoria* and that wonderful golden-orange Rose *Mme. Eugène Verdier*, so that altogether the variety under notice has a remarkable combination of progenitors. As I hinted before, *Frau L. Rautenstrauch* should be grown under glass. It will compare favourably with any of the Hybrid Teas used for that purpose, and although they are, without doubt, the best group to force for cutting, there are several sorts that could well be dispensed with now that the collection is being so rapidly enriched with worthier Roses. P.

### HOW TO GROW MARECHAL NIEL ROSES.

**O**f its colour, without a rival, this Rose possesses traits quite its own, and must be treated in matters cultural not as a true Tea-scented kind, nor as a *Noisette*. In all respects it stands alone. To obtain it in its glory it should be grown under glass. Still I can call to mind the first perfect flowers I saw, which were on a tree growing against a cottage in Sussex. Now, to those who contemplate making a start with *Maréchal Niel*, the first consideration will be what kind of tree is the best to procure. I recommend one budded as a standard on the common *Brier*, those worked as dwarf plants being found more liable to canker, and those on their own roots less vigorous in growth. All Roses delight in a soil that is known as yellow loam. Mix with this some charcoal and make a border, not large (say a yard square for one tree), but well drained. Plant the tree at once and cut back all growths to about 3 inches, for blooms must not be expected the first year. This Rose is not perpetual flowering, as the greater portion of Teas and *Noisettes* are. It gives one crop and an occasional bloom during the season. What is required are long, strong shoots, made one year, to flower at every joint the next, and close pruning must be practised to secure these. It matters not how old the tree may be; after the flowers have been gathered, which would be (under glass) about May, all growths should be cut back.

I have watched the progress of many fine specimens of the *Maréchal Niel* in various parts of the country, and, without exception, those showing health and vigour have been thus annually pruned; therefore cut back close in the first place, and one item towards success is secured. Others hardly less important, such as air-giving and watering, must also be mastered.

One of the pests to Roses is mildew. Cold draughts and changes in temperature assist its spreading. Ventilate, then, from the top of the house only. When the Rose is in a house of mixed subjects this is, of course, a difficulty, but then even the front ventilators near the tree need not be opened. I have a greenhouse in which Roses are chiefly grown, and seldom when growing do I allow any air to pass through the front lights. The foliage, path, and walls are kept in a semi-saturated condition till autumn; then, and, of course, while in bloom, the ventilators are thrown open to ripen the wood. At the resting period in winter and after pruning, the trees should be kept dry at the root, but when



ONE OF THE NEWER HYBRID TEA ROSES (FRAU LILLA RAUTENSTRAUCH).



growing freely it is hardly possible to over-water the *Maréchal Niel*, nor should something in the way of stimulants be forgotten when the bloom-buds are swelling. The deep colour cannot be obtained, at least under glass, from any but strong healthy shoots, which should be allowed ample room between trellis and glass—the same conditions as are applicable to the production of finely-coloured Grapes, Peaches, and so on.

Those who require this Rose for exhibition in July must, however, have it outside, and there is no reason why, in the great majority of the counties of Britain, it should not succeed. I have recollections of many fine trees in the South, and oftentimes envy the excellent positions the warm sides of out-houses of farms afford when visiting country places. A high wall for its long shoots is requisite, and close pruning back after blooming may be practised. As a standard, too, where the growth may be loosely trained by driving stakes into the ground to tie to, is another form. It has been budded on established trees of the *Gloire de Dijon* with marked success. That worst of all ills this fine Rose is heir to—canker—seldom visits the outdoor plants, but under glass it is always with us. It strikes a standard tree less often than the dwarf budded. The moment it appears my plan has been to root out the tree and begin afresh. S. C.

## CHRYSANTHEMUMS.

### NEW JAPANESE CHRYSANTHEMUMS.

#### NOVELTIES OF THE PAST SEASON.

**Q**UITE an interesting number of Japanese novelties were staged before the floral committee of the National Chrysanthemum Society from late October till early December last season, and many were given the society's first-class certificate. The varieties in the subjoined list will, doubtless, be represented in typical condition at next season's shows:

*Mrs. R. Hooper Pearson.*—A beautiful example of what an exhibition flower should be, having long florets of good breadth and substance; it is a large and deep flower of drooping form. Colour, rich canary yellow, tinted chestnut. First-class certificate, October 23.

*Magnificent.*—This is a very handsome flower for exhibition. The florets are very long, broad, and curling, making a large drooping and spreading flower. Colour, deep crimson, with nankeen yellow reverse. Quite distinct.

*Mrs. Walter Jinks.*—Another very large, neat, and attractive flower of drooping form. Florets, long and of medium width. Colour, bright reddish rose. First-class certificate, November 1.

*Algernon Davis.*—This was sent out last spring. It is a superb exhibition flower of comparatively easy culture, having rather broad, reflexing florets of good length, building a flower of large size. Colour, bronzy yellow, slightly shaded chestnut. First-class certificate.

*F. G. Oliver.*—This is a flower of Japanese incurved form, with long, broad, slightly twisting and curling florets of great substance, which incur at the ends. Because of its reputed easy culture it is sure to become popular. Colour, pale rosy lilac inside the florets, and silvery lilac reverse. First-class certificate, October 23.

*Norman Davis.*—This is best described as a glorified *Henry Perkins*, which, in many respects, it resembles. The florets are exceptionally long and broad, building a large and striking flower. Colour, rich chestnut-crimson, with golden reverse. This variety is a cross between *Henry Perkins* and *Lord Ludlow*, both popular Japanese

varieties. First-class certificate, October 23.

*Miss Codrington.*—One of the most effective flowers of the season, and likely to be a popular sort in years to come. As represented by Mr. H. Perkins, the raiser, it is a bloom of Japanese reflexed form, and is of even build and full. The colour is best described as a striking butter yellow, and as such is worthy of special notice; beautiful for large vases. First-class certificate, October 23.

*Mrs. Frank Penn.*—This is a Japanese reflexed sort, with fairly long florets of medium width. The colour may be described as rich yellow with greenish centre. It is a seedling from the pretty Japanese variety *Countess of Arran*. From what could be seen of the flowers, a second crown-bud selection from an early April stopping should be made. First-class certificate, National Chrysanthemum Society, October 23.

*Reginald Vallie.*—A charming flower, of drooping form, enormous size, and capital substance. Florets, fairly broad and of great depth, pleasingly curling at the ends. Colour, a pleasing shade of bright rose. First-class certificate, November 1.

*E. J. Brooks.*—This is already a popular sort, and there is little doubt it has come to stay for some time. The flower belongs to the Japanese incurved section, having long broad incurving florets, building a very full exhibition bloom. Colour, purple-crimson inside, as revealed by the drooping and slightly curling florets, with silvery plum reverse. First-class certificate, October 23.

*Mme. Marguerite de Mons.*—This is one of the few good Continental sorts of the past season. It is a large exhibition flower, that is disposed to open rather later than others. The florets are broad and pointed. Colour, bluish white. First-class certificate, October 23.

*Beatrice May.*—As seen on October 23 last, when this variety gained a first-class certificate, the flowers did not appear to be generally liked, but, if the buds be timed differently, to bring the flowering period a fortnight later, they will be generally appreciated. The flowers are large and full, having long, rather narrow florets. Colour, white, flushed a rosy mauve tint.

*Mrs. D. Willis James.*—A very attractive Japanese incurved exhibition flower. Florets, long and broad, pleasingly twisting and intertwining. Later flowers are of a beautiful Japanese incurved form. Colour, bright chestnut with golden reverse. Useful variety when grown for decorations. First-class certificate, October 23.

*Frank Greenfield.*—This is said to be a seedling from *Miss Mildred Ware*, which variety it somewhat resembles. Florets of good length and medium width, making a pleasing Japanese reflexed flower of drooping form. Colour, rosy cerise with silvery reverse—a somewhat novel colour. First-class certificate, National Chrysanthemum Society, October 23.

*Mme. R. Oberthur.*—Another ivory-white flower of Continental origin. It is of Japanese reflexed form, having long, rather narrow, florets, curling at the ends, and drooping. First-class certificate, November 20.

*British Empire.*—A large and handsome Japanese reflexed flower of drooping form, and of easy culture. As exhibited on November 20 last, when the National Chrysanthemum Society gave it a first-class certificate, it was acknowledged



THE BOG VIOLET (*PINGUICULA VULGARIS*) GROWN IN A PAN.

on all hands to be a distinct acquisition. Florets, long, and of medium breadth. Colour, reddish-chestnut on an orange-yellow ground. Distinctly promising.

*John Peed.*—This is one of the giant blooms of the season, but, as represented, it could not be regarded as either refined or pleasing. A later bud selection, however, would doubtless completely alter its character. Florets, broad, rather flat, and straight, or erect. Colour, white, freely tinted rosy lilac. First-class certificate, November 20.

*Katie Palgrave.*—Another good type of Japanese incurved bloom, having long, fairly broad petals, pleasingly curling, and building up a deep, massive-looking flower of good form. Colour, ivory-white, becoming rich towards the centre. First-class certificate. D. B. CRANE.

(To be continued.)

## ALPINE PLANTS IN PANS.

**A**N illustrated article in a recent number of *THE GARDEN* on alpine plants in pots suggested to me to send the enclosed photograph of the Butterwort (*Pinguicula*). The illustration depicts one of two pans of this pretty little wildling; all were produced from four plants collected two years previously. The very numerous bulbils produced the first year were separated, and the largest only planted the last week in February. They soon started into growth when brought into the shelter of a cold sunless greenhouse. The first blooms opened the second week in May, and both pans appeared similar to that in the illustration at the end of May. The earliest blooms began to fall in early June, so that for several weeks the pretty violet blossoms, standing well above the yellow green foliage, formed extremely interesting groups and were greatly admired. In a collection of plants sent from the Glasgow Botanic Gardens last year to the Edinburgh Flower Show I saw *Pinguicula cordata* with large rose-coloured flowers. For years I grew common hardy and wild plants in pans,



especially bog plants, such as Sundew (*Drosera*), Grass of Parnassus (*Parnassia palustris*), &c. Saxifrages and *Sempervivums* also, which quickly overflowered and concealed the rims, and flowered profusely. I was induced to experiment in these things in order to show poor people, and especially children, that they need neither buy expensive plants nor even have a garden, and yet might possess beautiful and interesting flowers with a minimum of trouble and space.

Portobello, N.B.

W. T. BASHFORD.

## THE FRUIT GARDEN.

### FALLEN LEAVES FOR COVERING VINE BORDERS.

**I**N the majority of gardens it is the custom at this season of the year to cover the inside borders of vineries with straw or stable-manure. Now I should like to say a few words in favour of leaves as a covering for both Vine and Peach house borders; there are always plenty of leaves to be had at this time. I first saw leaves used as a covering in a large garden in the North of England, where fruit of all kinds is exceptionally well grown. As soon as the houses were washed and everything was ready for starting the vinery, we covered the whole of the border with leaves which, when firmly trodden, would be about 18 inches deep. In a short time the leaves began to heat and induced the roots to come to the surface, and what pleases a gardener more than to see plenty of surface roots on his vinery borders. If the leaves are left on the whole year they will be beneficial in many ways; besides always looking neat and clean, they save watering the borders so often. I have used them on Fig and Peach house borders whenever I have had the opportunity, with very good results, for the leaves undoubtedly bring the roots to the surface. It is no use putting on a slight covering of leaves; they must be trodden down at least 1 foot thick and more, if possible, then when you come to examine the border in the autumn it will in most cases be found a network of roots.

The Gardens, Biel.

B. G. J.

[We confess to some feeling of surprise on reading that "it is customary at this time of year to cover the inside borders of vineries with straw or stable-manure." That may, however, be common practice so far North as you are, but it is far from being so in the South. Practice alone may be different, for local climatic conditions may render this covering of inside borders essential. But if the latter be the case, we can well understand that a thick covering of clean tree leaves, giving off no offensive odour or spasmodic heat, but simply a gentle and an enduring warmth, would be best. Still, there is danger with a big bulk of leaves of importing into vineries a good deal of insect life. It is well to cover outdoor borders in the winter, especially where exposed to excessive rains or snowfalls. It is, however, now not often that we suffer thus in the South, and at the most a light covering suffices. Best of all to furnish protection are straw-thatched hurdles, as these can be laid on easily and be removed as easily in the spring, when the admission of the sun's warmth to the border and vine roots is of the first moment. In market establishments, where Grapes are grown in enormous quantities, it is common practice to place over the borders, all inside, a thin layer of horse-manure after the fruit has begun to swell, but these mulchings do not interfere with the occasional dressings of artificial manures, given to enable the surface roots to feed freely, and the Vines to carry truly wonderful crops.—ED.]

### PRUNING BUSH FRUIT TREES.

#### GOOSEBERRIES.

I RARELY prune my Gooseberry bushes, unless to keep the shoots clear of the ground. By not using

the knife in the centre of the bush, we are seldom troubled with suckers or too thick growth; in fact, I like to see some strong young growth springing up, in some cases reaching 5 feet, as it adds to the height and productiveness of the bush. If the middle appears thick in winter, the weight of fruit will open it out in summer, and besides, we have been visited the past few springs with very severe frosts, thin bushes of some varieties having been denuded of fruit, the only berries entirely escaping injury being those in the middle of a thick bush. Of course, if you once commence using the knife much in a Gooseberry bush, you must follow it up, as there will be difficulty in getting at the berries, owing to the mass of young shoots. In gardens proper, attention must be paid to the neatness of the bushes for appearance sake, especially when they are by the sides of the walk. On the other hand, a well-manured, unpruned Gooseberry bush, with its immense crop of berries, is a greater source of gratification than the close-pruned, neat, but comparatively unproductive specimens so often met with.

#### CURRENTS.

With Black Currants we must prune, or rather cut away old wood, to secure strong young growth for preservation and productiveness of bush, and we must have room to get amongst them. Apply more manure and prune less if you want bush fruit in quantity. There is no necessity, as with Apples, for the sun's rays to reach the fruit; in fact, too much direct sunshine is injurious to young green Gooseberries; it turns them brown. Red Currants should generally be pinched back in summer, but my bushes (Raby Castle, strong, sturdy, and prolific) have neither been pruned nor pinched since they came from the nursery, and certainly pruning could not improve them. The simplest way to treat

#### RASPBERRIES

if they are to be supported (though in large plantations they are cut low and supports dispensed with) is to have them in rows, say, 5 feet apart, running some string, thatch twine, or other material each side of row, fastening to stakes every 2 yards or 3 yards. In pruning I prefer to cut the canes, according to size, to a height of from 2 feet to 5 feet, which gives a more regular crop and more room for the fruit than when all of one length, as most of the fruit springs from the upper buds of the cane.

W. B.

## FORMATION AND CARE OF LAWNS.

(Continued from page 85.)

#### CHOICE OF SEEDS.

**N**OTWITHSTANDING the great advance which has been made during the last few years, even now only the most acute observers realise the immense importance attaching to the selection and relative proportion of grasses in the formation of a lawn. It must be remembered that grasses vary considerably in vigour and to some extent in habit according to their surroundings, and with the object of getting the best results the peculiar conditions of each particular case must be carefully considered. A knowledge, therefore, of the native or indigenous herbage of the district is often essential to success. There is no great difficulty in recognising a grass when it is in flower in the hedgerow or in a meadow, but in the case of turf no such guide is available, and consequently a certain amount of botanical knowledge and experience are necessary, with a view of determining the species of which it is composed.

The plan of creating a lawn by the sowing of one kind of grass only is never now adopted by a practical gardener. However suitable a particular

variety may be for the soil for which it is intended, it can never give satisfaction alone, because there is no one grass in perfection all the year round, and plants of the same grass generally remain isolated and refuse to grow together.

To the amateur the knowledge of the varieties of grasses specially suitable for the formation of lawns is of the greatest importance. Perennial Rye Grass is probably still employed more largely than any other grass. With the demand, however, for turf far finer in quality than was ever thought of a few years ago, the use of Perennial Rye Grass has diminished.

In addition to Perennial Rye Grass a few of the more important species are: *Poa pratensis* (Smooth-stalked Meadow Grass), *Festuca rubra* (Red Fescue), *Festuca duriuscula* (Hard Fescue), *Cynosurus cristatus* (Crested Dogtail), *Festuca ovina* (True Sheep's Fescue), *Festuca ovina tenuifolia* (Fine-leaved Sheep's Fescue), *Poa trivialis* (Rough-stalked Meadow Grass), *Poa nemoralis* (Wood Meadow Grass), and *Achillea Millefolium* (Yarrow or Milfoil).

I cannot leave the question of the particular species of value in the composition of a lawn mixture without referring very briefly to the desirability or otherwise of including clovers.

There is probably no question relative to lawns upon which there is so much difference of opinion. Some people insist upon their inclusion in every mixture, while others have a pronounced antipathy to them. Speaking generally, however, there is no doubt that they should be avoided on tennis courts, where it is all-important that the ball should rise quickly and truly from the surface. On the other hand, in lawns for general purposes clover is advantageous the first year after sowing, in that it quickly covers the ground, and will make the use of the lawn possible earlier than if grasses alone had been sown. Here again, however, the constant and careful use of the mowing-machine is essential, or the plant may become strong and unsightly.

The proportions in which these various grasses and clovers should be used very largely depend on local conditions, and I have often seen an identical mixture of seeds, sent at the same time of year to two different places, with the same object in view, produce widely different results, from no fault whatever of those who have had to do the practical work, but solely on account of the variation in the character of the two soils and climatic conditions.

**QUANTITY OF SEED TO SOW.**—Whether clovers are included in the mixture or no, it is unnecessary for me to emphasise the importance of sowing new and pure seeds of strong germinating power, but a generous seeding is always advisable in order to smother the annual weeds, and it should be remembered that the fine grasses of which a lawn is composed do not tiller out to the same extent as the larger pasture varieties. At least four bushels to the acre should be sown, and this quantity may be considerably increased with every advantage to the lawn, for the closer the plants are crowded together the finer will be the quality of the herbage.

#### SOWING.

The best time at which to sow in order to obtain the finest results has always been a debatable point, some preferring the spring and others the autumn. Generally speaking, however, sowing may take place any time between the middle of March and the end of September, provided, of course, favourable weather is experienced. When spring sowing is resorted to, it is wise to complete the operation before the commencement of May, in view of the probability of a dry period setting in, while autumn sowing cannot be generally recommended after the end of September or middle of October owing to the danger of early frosts. Personally, however, I am in favour of autumn sowing, as the damp, mild weather usually experienced in October is an ideal condition for the germination of grass seeds, and there is far better chance of

getting a thoroughly good lawn for use the following summer than when sowing is delayed until the spring. However perfect a mixture may be, no success can be expected unless seed is sown by someone conversant with the operation. Two sowings at right angles to each other are always preferable to one, and naturally a quiet day is essential, as grass seeds are very light and cannot be distributed evenly in a wind. After sowing the soil should be carefully raked, but this operation must be done very lightly, as grass seeds will not germinate unless close to the surface, and afterwards a double rolling at right angles will be necessary. The first three essentials to the seeds after sowing has taken place are air, moisture, and light, each of which plays its beneficent part in assisting germination. As soon, however, as the grass is above ground it requires most careful treatment. The quality of the future turf will largely depend on whether the processes of cutting and rolling are commenced soon enough, and carried out systematically and intelligently afterwards.

When young, the grass must never be mown by a machine, but should be topped with a scythe, and this should be done frequently until the plants tiller out and become sufficiently strong to bear the mowing-machine. Even then, however, great care should be taken to see that the machine is in perfect order, and that the knives are set correctly and so sharp as not to pull up the young plants. Meanwhile the roller also must be in constant use, and no firm turf is obtainable without it.

#### MOSSY TURF.

One of the most frequent causes of annoyance in old turf is moss, which makes its appearance freely under certain conditions, and is almost invariably due to indifferent drainage and consequent sourness of soil. When moss becomes really bad the drainage has probably become defective, and it is a serious question whether, despite the cost and the outlay entailed, it may not be true economy to have the drains up and entirely relay them. If this is out of the question, however, the quality of the turf may be greatly improved by severely tearing the surface with an iron tooth rake to detach the moss. Such moss should be collected and destroyed by burning. A compost of fine soil, slaked lime, and well-rotted manure sifted through a half-inch-mesh sieve and applied as a dressing to a depth not exceeding half an inch, and followed by an application of bone-meal at the rate of 4oz. to the square yard, will prove most beneficial. This should be raked carefully over and well rolled down.

#### WEEDS.

As all those who own a lawn know to their cost, it is astonishing in how short a time a lawn will be disfigured by the appearance of plants of various kinds of weeds, such as Dandelion, Plantain, Thistle, and Daisy. Some of the seeds of these weeds are introduced by birds, others are blown by the wind. Various suggestions have been made for their extermination, but, unfortunately, there is no really satisfactory way of getting rid of them except by manual labour. They are, however, far more easily dealt with in a young state than after they have been allowed to mature. Undoubtedly a certain amount of good can be done by dipping a wooden skewer into sulphuric acid, strong carbolic acid, or one of the liquid weed destroyers, and plunging it into the centre of the plant. There is always, however, the danger of killing grass as well, in addition to which such preparations need very careful use, or serious consequences may follow to the operator. There is one other cause of annoyance in old lawns with which owners do not always know how to deal. Sometimes hollows appear through the sinking of the turf. In the case of newly-made lawns the turf is generally not of sufficient maturity to cut up and roll. In this case the hollows should be filled with a thick covering of soil to the same level as the surrounding turf, and then sown with the same

mixture of grass seeds as was used originally. Depressions in old lawns can be more easily remedied. In this case it is only necessary to cut and roll the turf occupying such hollows and fill up the bed underneath with fresh soil to the proper level. The turf can then be replaced, pressed down, and watered. Naturally, this operation should take place at a time of year when the turves have every chance of growing together again.—*Extracted from a lecture by Martin F. H. Sutton before the Royal Horticultural Society.*

## DAFFODIL NOTES.

### NARCISSUS MACLEAI.

**A**MONG the dwarf Daffodils which are the most happily placed in a sheltered spot in the rock garden, this distinct little plant is well worth a place. Apparently we have no positive information as to its origin save that it was received from France in the year 1819 by Mr. Alex. Macleay, from whom it took its name. Beyond this nothing further appears to be known, though, as it has never been found wild, it has always been assumed to be of hybrid origin, and its parentage has given rise to much speculation.

Mr. J. G. Baker, in his "Review of the Genus Narcissus," remarks that "it resembles most the bicolor variety of Pseudo-Narcissus, from which it may be known by its smaller size, bright green leaves, and crown not more than half-an-inch long. Is it a hybrid between Tazetta and some of the varieties of the Daffodil?" Years ago Mr. Peter Barr gave as his idea that the parentage was Pseudo-Narcissus crossed with Tazetta, and surmised that the bunch-flowered character had been lost. Mr. Engleheart, I believe, thinks this possible, but prefers the opinion that it was derived from some small, very stout form of bicolor crossed with Poeticus. Here it proves of easy culture, but seems to appreciate a well-drained gritty soil and a warm position. Complaints have reached me that it is a little shy in flowering, but I should imagine that soil and position have a great deal to do with this. The flowers are very small, with pure white segments and a rich orange cup. An excellent coloured plate of Narcissus Macleai is given in "The Narcissus: Its History and Culture," by the late Mr. F. W. Burbidge. The illustration portrays a clump of it which has been established in a small rock garden here for some four or five years.

### NARCISSUS ELVIRA.

This Narcissus gives much satisfaction. Some of these Polyanthus hybrids are very poor outdoors, but in this we have a really excellent garden plant—hardy, most effective, and withal cheap. It was raised in a Dutch nursery from Poeticus crossed with Tazetta. With me it grows quite 2 feet in height, and carries three or four large, well-shaped flowers on each stem. The petals are broad, white, and of good substance, while the cup is bright yellow, edged with orange. The stems are so strong and sturdy that they are not easily damaged by wind—an important consideration in many gardens.

### A DAFFODIL ANNUAL.

A question which has been agitating the minds of several enthusiastic Daffodil lovers is the desirability or otherwise of annually issuing a



ONE OF THE DWARF DAFFODILS (NARCISSUS MACLEAI).

publication, as soon after the spring shows as convenient, containing accounts of the Daffodil exhibitions, varieties that received awards, cultural details, and any other matter which would tend to the advancement of the flower and assist in spreading information about it. The suggestion originated, I believe, with Mr. F. H. Chapman, and as it already seems to have been extremely well received by some of the leading amateur growers, it is to be hoped that readers of THE GARDEN will express their approval of the project, and thus encourage the carrying out of this idea to a successful conclusion. We are certainly not overburdened with books about the Daffodil.

The Elms, Kidderminster. A. R. GOODWIN.

## THE GREENHOUSE.

### MALMAISON CARNATIONS.

**N**OW that the days are lengthening and growth is becoming more active, the final potting of the young plants of the *Souvenir de la Malmaison* Carnation should receive attention. I refer to those plants which have been wintered in 3-inch pots. Care should be taken that the roots are in a proper condition as regards moisture. Very often plants which have been kept rather dry for some considerable time require two or three successive waterings to thoroughly moisten the roots. On the other hand, they must not be made too wet. The strong-growing varieties should be transferred to 6-inch pots, while for the weaker ones 4½-inch pots will be large enough. The potting compost should consist of three parts fibrous loam, broken to the size of a Walnut, with the finer particles shaken out, one part flaky leaf-mould and old Mushroom-bed manure, with a good sprinkling of sharp sand and lime scraps. To each barrow-load of compost a 6-inch potful of Thomson's Manure should be added, and the whole well mixed.

When potted, place the plants in a cool, airy house close to the glass, and maintain a brisk circulation of air. The first watering should be given with a rose can, choosing a bright morning for this, so that the foliage may get dry as soon as possible. The pipes may be slightly warmed to assist in the drying; otherwise no fire-heat will be required except during severe frost. Great care must be taken in the watering at all times, as the plants are apt to damp off at the collar. When the pots begin to get full of roots, weak manure water may be occasionally given, and weak doses of soot water are also beneficial, giving a brighter tint to the flowers and a deeper green to the foliage. As the flowers open they should be slightly shaded from bright sunshine.

If the plants are affected with the rust, the diseased leaves should be picked off, and with constant attention to this detail the dreaded fungus will in time be eradicated.

In the following list some of the best varieties are included: *Duchess of Westminster*, one of the finest, of a beautiful rose-pink colour; *Baldwin*, dark pink; *Gemma*, deep pink in the centre, lighter at the edge of the petals; *Sault*, of a delicate salmon colour; *Albion*, dark salmon; *Calyppo*, a grand variety, with the flowers flesh-coloured, slightly splashed with white. *Princess of Wales* may also be mentioned in the pink varieties. Of the white sorts, *Nell Gwynne* is far the best. *Thora* is blush, changing to white. *Maggie Hodgson*, a beautiful dark crimson sort, deserves mention. Two good reds are to be found in *Prime Minister* and *Churchwarden*. The new *Yaller Gal* is well worth growing. It has bright yellow flowers and dwarf, robust growth. *Cecilia*, although not a true *Malmaison*, ought to be in every collection; its large yellow flowers are quite a feature.

*Sopley, Christchurch.*

J. MURRAY.

### FERNS FOR COVERING WALLS.

BRICK pockets are sometimes built in the walls for planting Ferns in, and in some instances these may be used with advantage; but it would entail some cost as well as trouble to rebuild walls for this purpose, and it is hardly necessary, for on walls where there is sufficient moisture many of the Ferns with spreading rhizomes will, when once established, grow freely, and eventually cover a considerable space. Many of the *Maidenhairs* and some of the *Polypodiums* also succeed well. For such as require more soil to root into some rough compost may be fixed to the wall by means of galvanised wire netting. Cork pockets may be made to hang against the

wall, and many Ferns do well in these. All the *Platyceriums* may be recommended for growing in pockets, and when hung against a moist wall succeed better than when in a drier position. The *Davallias*, too, are almost all of them suitable for the purpose, *D. dissecta*, *D. griffithiana*, *D. Mariesi*, *D. elegans*, *D. Tyermanni*, and similar varieties being the most useful. The *Nephrolepis* do better when the compost is fixed to the wall by means of wire netting. The varieties should be selected according to the space that can be given them. *N. pectinata* is the best of the smaller-growing sorts. *N. exaltata* and *N. philippinensis* are also useful. *N. davallioides* may be used where space is not limited. *Goniophlebium subauriculatum* is another fine Fern for growing against a wall, but requires a warm position. Under good treatment the long pendulous fronds are very effective. *Hypolepis distans* spreads very freely. *H. repens* may also be included. Many other Ferns might be added to this list, but the above will be found a useful selection. It requires a little care in arranging the different sorts, but with a little judgment a large space may be made very effective. X.

## THE FLOWER GARDEN.

### ANNUAL FLOWERS IN COLOUR GROUPS.

**B**EAUTIFUL colour effects can be created in the garden by the use of simple hardy annuals set in groups just where brightening influences are required, and forming eye-satisfying harmonies both in themselves and in conjunction with their surroundings.

An old grey fencing is an admirable background for a display of scarlet Poppies. Either there may be an extensive sowing of the dazzlingly vivid *Tulip Poppy*, which grows but 1 foot high, in which case a few branching *Royal Blue Larkspurs* may supply blossom 2½ feet above the red carpet, or the tall *Poppy Mephisto* may be set in groups here and there, and the ground be covered by dwarf *Victoria Cornflowers*. If a judicious introduction of some *Zea japonica variegata* is made in the same border-stretch, the colour harmony will be gorgeous, but not crude, backed by the weather-stained wood.

Against a grey paling, facing north—a cold, dreary spot—it is still possible to have some splashes of cheering colour in summer. *Nasturtiums* will bloom, though not as freely as in sunshine, so should be represented by scarlet and gold varieties, both dwarf and climbing, in great profusion. White flowers there as well will give the effect of light in so dull a place, and no annual can be better to locate on the *Nasturtium* carpet, against the vermilion and orange climbers, than *Lavatera trimestris alba*, which flowers with me successfully even under the shade of tall trees. A further stretch of the north border may become a glowing expanse by sowing there the dwarf double magenta crimson *Jacobaea*; at intervals may rise single plants of any lemon-hued *Sunflower*, either a miniature-blooming *Helianthus*, which will be sure to blossom freely even in shadow, or a giant of the family that will over-top the fence, and so gain the sunshine it needs.

A belt of *Laurel*—not a very attractive sight in itself—becomes at once a giver of beauty if used to show up a foreground of carmine *Godetias*, among which rise some

tall white double Poppies. If there is a rather cold-looking rockery, its appearance may be redeemed by the scattering of *Mandarin Eschscholtzia* seed, and the pricking out among the patches of some violet *Candytuft*.

A lawn that is adorned chiefly by shrubs is likely to be improved by at least one bed for hardy annuals. Supposing this to be a round one, it may be two-thirds filled with miniature *Sunflowers*, then given a ring of white rocket *Candytuft*, with an edging belt of dwarf carmine *Candytuft*. A glorious colour combination will result.

EMILY J. DUNHAM.

### A BEAUTIFUL ANNUAL.

*NEMESIA STRUMOSA* SUTTON.

Few annuals can compare with this lovely South African plant, and it is surprising that it is not more grown. It is easily raised from seed, which should be sown in March, in slight heat, the seedlings pricked off into boxes of good light soil as soon as large enough to handle, and planted out at the end of May. I have not found it very fastidious as to soil, but a rather light, well-worked, and well-manured loam will give the best results. The flowers are of great brilliancy, and for bedding may be had in separate colours. I consider, however, that the most charming effect comes through planting fairly close and using the mixed colours. Although of so many different shades, they yet seem to thoroughly harmonise, and the colours, though bright, are not crude. For ribbon borders, I know of nothing more charming than the new dwarf varieties *N. a. S. nana compacta*. The colours are less brilliant than in the type, but are none the less beautiful, while the growth of the plant is much more compact, and is literally smothered with small flowers for months. I also find that this latter variety is far harder than the large-flowered section, and even during the wet, cold seasons of 1902 and 1903 it flowered most satisfactorily. I would strongly advise all who have not yet tried them to order a packet of each this spring and give them a fair trial.

*Preston, Linlithgow.*

C. BLAIR.

### HARDY ANNUALS.

SEEDS of hardy annuals should be sown on a carefully-prepared surface. Remove all large stones, and by means of the rake get as fine a "tilth" as possible. It is best to sow in shallow drills, even when sowing in a border containing other plants. By this means the seed can be more easily covered at a regular depth, and the work of weeding is accomplished with greater ease. As the seedlings appear thin them out; do not allow them to become drawn and weakly. Annuals which transplant easily should be sown on specially-prepared beds. When large enough plant them out, choosing showery weather for the work. Hardy annuals amply repay for liberal treatment. A frequent cause of failure lies in allowing the plants to become overcrowded.

A few of the best hardy annuals are *Bartonia aurea*, yellow, large, showy flowers; *Calendula* in various shades of orange, white, and purple; *Calandrinia*, rose and crimson; and *Candytuft*. These should be sown where they are intended to flower. *Centaurea* (Cornflower), *Collinsia*, very attractive, and useful for town gardens; annual *Chrysanthemums* in great variety; *Clarkia*, easily grown and very attractive in large masses; *Coreopsis*, useful for cutting; *Eschscholtzia*, grows well in comparatively poor soil; *Eutoca viscosa*, a good bee plant; *Gilia*, in shades of white and lavender, also a good bee plant; *Godetias* should be grown in masses and are then very showy; *Helianthus* (*Sunflowers*) should be grown by all; *Helichrysum* (ever-lasting flower) is useful for winter decorations,







HYBRID TEA ROSE  
J. B. CLARK.

and *Senecio elegans* for bouquets. Larkspur in variety; *Lavatera*, most useful, lasting a long time when cut; *Mathiola bicornis* (Night-scented Stock) should be grown largely on account of its exquisite perfume. *Mignonette*, *Nemophila*, and *Nasturtiums* are indispensable; the dwarf *Nasturtiums* make splendid bedding plants, and the tall ones are useful for covering unsightly fences, &c. *Nigella* (Love-in-a-Mist)—the new variety *Miss Jekyll* is a grand acquisition. *Phacelia*, very early flowering; Poppies, both the Shirley and Giants, should be grown in every garden; Sweet Sultans are splendid for dinner-table and other decorations; and *Virginia Stock* is early flowering and easily grown.

Munden Gardens, Watford.

C. RUSE.

## COLOURED PLATE.

PLATE 1292.

### THE NEW ROSE J. B. CLARK.

AT the metropolitan show of the National Rose Society in July last quite a mild excitement was caused by a superb bloom of the above beautiful novelty, which obtained the silver medal as the best specimen of a Hybrid Tea in the show. This marvellous flower was 5 inches deep and 7½ inches in diameter. If a Rose of such beauty can be brought from Ireland to London, what must be its value in our own gardens! The colour of J. B. Clark is a rich deep scarlet, shaded with blackish crimson. This magnificent Rose was raised by Mr. Hugh Dickson, the Royal Nurseries, Belfast, who showed the bloom alluded to.

The particular medal bloom alluded to above gave one the impression of being a glorified Liberty. I believe I am right in saying that the Rose Lord Bacon was one of its parents. This good Hybrid Perpetual, sent out some years ago by Messrs. William Paul and Son, is one of our best red autumn-blooming sorts of this group, and the lovely production

in my own mind whether it is right to put J. B. Clark among the Hybrid Teas. The strong, sturdy maiden plants, with shoots 4 feet to 5 feet long, and the thick heavy wood, place it nearer the Hybrid Perpetuals. I do not know that this matter is of great importance, because the two groups are allowed to be exhibited together; but there is a vast difference between the growth of such a variety as J. B. Clark and that of *Mme. Ravary o Prince de Bulgarie*.

The thick, leathery foliage should enable J. B. Clark to be proof against mildew, and if it is so, this will be a great advance. We want a race of Roses that can withstand the insidious attacks of this fungus, which so sadly mars the beauty of Roses such as Killarney, *Mrs. Sharman Crawford*, and the like. W. E.

country to a height of 20 feet and is perfectly hardy, while its flowers possess the desirable quality of enduring from 10° to 15° of frost without injury. Though introduced into this country nearly forty years ago, the shrub is still rare in gardens, owing to the difficulty experienced in propagating it. It is a desirable addition to our few winter-flowering shrubs.

### A WINTER HEATH.

(*ERICA LUSITANICA*.)

IN districts not visited by very severe frosts, and where peat-loving shrubs thrive, this charming species should find a conspicuous place in the garden. Being a native of Spain and Portugal, it will readily be understood that it is not suitable for very cold places, and although it has stood uninjured at Kew for the last eight years, a very severe winter will probably prove fatal. There are, however, many favoured localities never visited by more than a few degrees of frost, and those are the places for *E. lusitanica*. There it will assume the proportions of a large bush many feet high, and from November onwards to the end of March it will bear a profusion of pure

white blossoms with pretty reddish anthers. At Kew there are a number of fine plants, 3 feet high and 2 feet to 3 feet through, made up of numerous plumose branches, thickly beset with pretty green leaves and white flowers. These commence to open in autumn, the finest display being in February and March. In the event of severe frost it is advisable to scatter a little hay lightly among the branches, removing it at once when a thaw sets in. When young rapid growth is made, plants 1 foot high and 1 foot through being formed within three years from the time cuttings are inserted. The hybrid, *E. Veitchii*, exhibited last spring by Messrs. Veitch of Exeter, claims *E. lusitanica*, which, by the way, is known in many gardens as *E. codonodes*, as one parent.

W. D.

### A CHINESE HONEYSUCKLE.

(*LONICERA FRAGRANTISSIMA*.)

WHEN well grown and flowered this Chinese species forms a very desirable garden shrub, and it has the advantage of being uncommon, very few people possessing a really fine specimen. Mature bushes are of considerable size, 5 feet to 7 feet high, and 8 feet or 9 feet across. In mild winters the leaves are carried until young ones appear. The flowers are pure white and sweetly scented, and are borne freely, usually in pairs, from the leaf axils. In some respects it resembles *L. Standishii*, another Chinese species which blooms about the same time. This, however, is deciduous, forms a less spreading bush, and bears cream-coloured flowers. *L. fragrantissima* is a useful shrub for placing in the conservatory while in blossom, its fragrance being very acceptable. Cuttings root fairly readily during late summer, but they do not grow into large plants at all quickly. At various times a variety of names have been applied to this shrub, some of the best known being *L. candidissimum*, *L. odoratissimum*, and *L. caprifolioides*.

W. D.

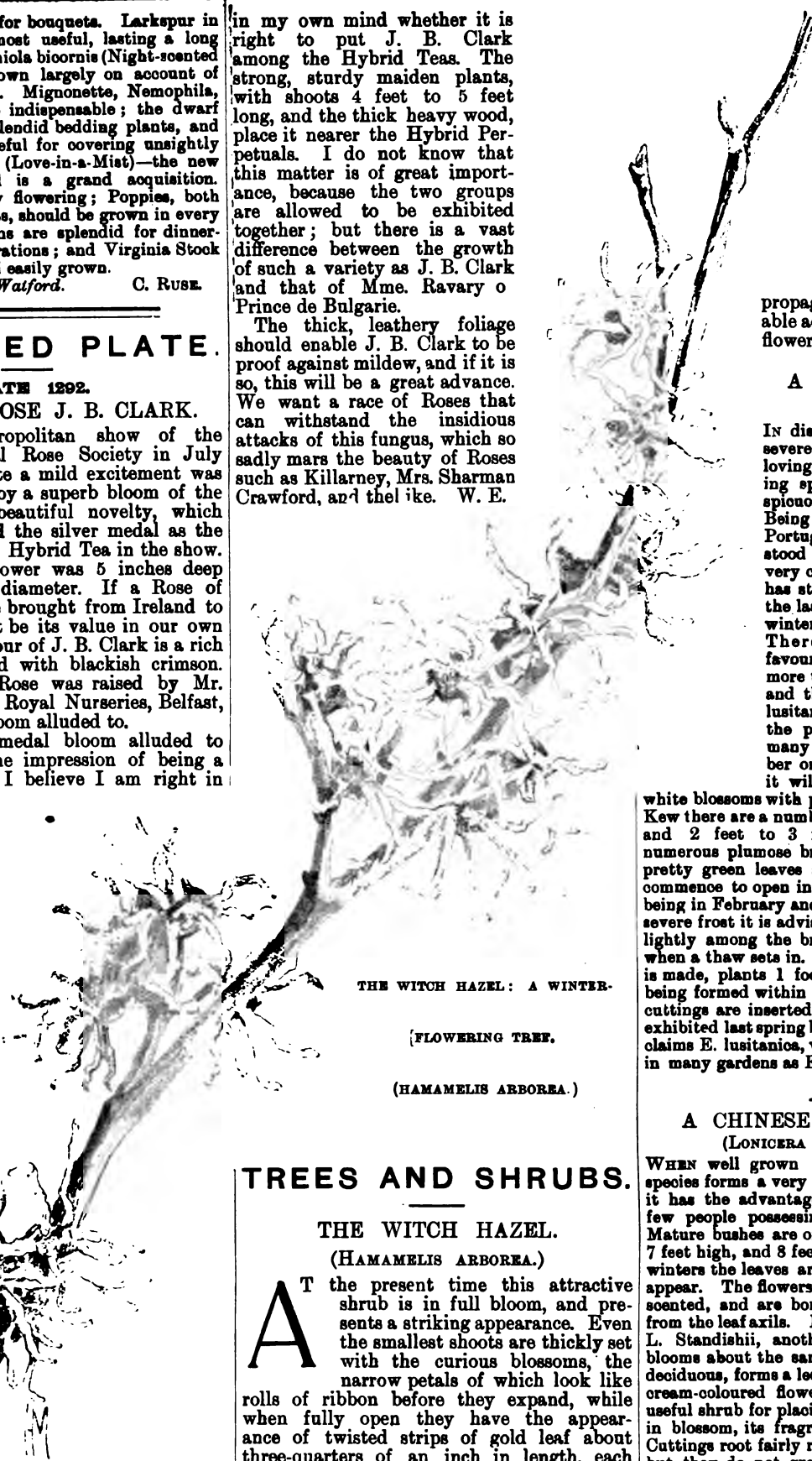
## TREES AND SHRUBS.

### THE WITCH HAZEL.

(*HAMAMELIS ARBOREA*.)

AT the present time this attractive shrub is in full bloom, and presents a striking appearance. Even the smallest shoots are thickly set with the curious blossoms, the narrow petals of which look like rolls of ribbon before they expand, while when fully open they have the appearance of twisted strips of gold leaf about three-quarters of an inch in length, each flower being composed of four petals, which contrast pleasingly with the crimson sepals. This *Hamamelis*, which goes by the name of the Japanese Witch Hazel, grows in its native

which is the subject of this note proves that there is a latent value in the Hybrid Perpetuals which the skill of the hybridist may with patience evolve. I am not yet convinced



THE WITCH HAZEL: A WINTER-

FLOWERING TREE.

(*HAMAMELIS ARBOREA*.)

## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**HOT-BEDS IN BLOCKS.**—Where much forcing by this means has to be done, there is some advantage in building the beds in blocks. A bed should be wide enough to carry two sets of frames, leaving a space between for a person to walk along to attend to the plants. The heat is more constant and more lasting in such beds; consequently for ordinary work at this season the beds need not be quite so high. We have found some advantage in this plan for growing Potatoes, Carrots, Asparagus, Lettuces, and for raising large numbers of seedlings or propagating soft-wooded plants from cuttings. In making a bed for cuttings or seedlings planted or sown in pots, 5-inch pots are commonly used, and the frames are filled with Cocoanut fibre, or, failing that, sawdust answers very well for plunging the pots in to receive the warmth from the beds, and reduces

the necessity for much watering. The simplest kind of hot-bed is to dig a wide trench in the ground, fill with warm fermenting material, raising it a little above the surface, and when completed put on any rough home-made frame fitted with glass. A good many things may be raised in a frame of this kind—good early Potatoes, Carrots, Radishes, Lettuces, and even Cucumbers and all kinds of half-hardy plants later on when the sun gains power enough to help in the work. There must, of course, be warm coverings at night—this applies to all frame culture—and the frames should be in a sheltered position.

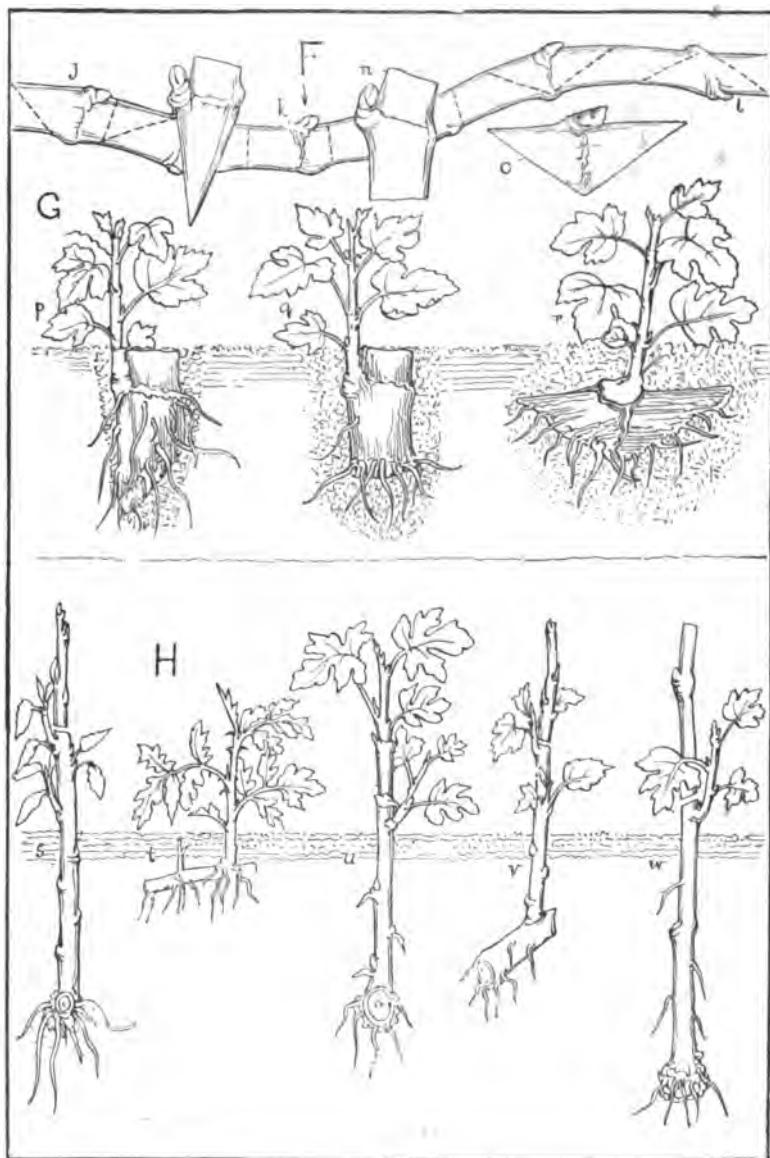
**Propagation by Eyes or Cuttings.**—*Eyes, or One-bud Cuttings.*—F. Portion of a Vine cane marked for cutting into "eyes," or bud cuttings: (j) wedge-shaped; (k) transverse out above and below eye; (l) triangular one-bud cutting;

part intended to be inserted in the soil, which should be about 6 inches, or two-thirds of the length of the cutting; shorten it, if long, to two or three buds above the soil—roots are formed from the heel of the two-year-old wood; (t) cutting of Blackberry root about a quarter of an inch to three-eighths of an inch in diameter, and 2 inches in length, planted nearly horizontally and 1 to 2 inches deep in loose, rich soil; (u) cutting of Fig with a heel—roots are formed from the latter and from joints; (v) cutting of Mulberry, with portion of two year old wood; (w) cutting of Vine with three joints, inserted to the base of the highest bud—roots form at the base and between the joints. Cut out all buds on parts below the soil, except with the Blackberry root-cutting.

**Chrysanthemums: What to do with Young Plants.**—Chrysanthemum cuttings that were inserted a month to six weeks since, should before this be nicely rooted. Assuming the cuttings were treated as prescribed at that time, they should have commenced root action. One means of satisfying the inexperienced grower as to whether the cuttings are actually rooted, is that of watching the apex of the shoot (cutting), which usually denotes the fact by evolving new leaves. Even this is no proof in some cases. The better plan is to gently shake out each plant, when the roots may invariably be traced running down the side of the ball of soil in which the cutting was inserted. In either case, the young plant should be removed from the close frame in which it was propagated, and placed in another simple contrivance on the greenhouse bench. This should be well ventilated, and by admitting more air each day the young plants may be inured to the cool greenhouse. Before they get drawn the young plants should be placed on shelves arranged near the glass roof. As these shelves are generally some distance from the glass, it were better to fix up other temporary ones on top of them. This may be accomplished by bricks or pots, and placing boards on the latter, thus bringing the plants up immediately below the glass. By these means the growth is kept sturdy and short jointed, and the future well-being of each plant, to a large degree, ensured. Watering is a matter that needs to be carefully looked after. As a matter of fact, the increasing length of day and the periods of bright sunshine at this season, dry the small quantity of soil in the 2½ inch pots quickly, and unless the young plants be carefully looked through two or three times each day, many of them may suffer for want of moisture. Green fly in the points of the shoots may be eradicated with Tobacco powder, and mildew by dusting the affected leaves with flowers of sulphur. Unless this be done, this fungoid disease will spread rapidly.—C.

#### Cuttings of Various Forms.

H. Apple, Blackberry, Fig, Mulberry, and Vine: (e) cutting of Apple, a well-ripened shoot of the previous summer's growth taken off the branch from which the cutting springs, with a heel or piece of the branch. The buds are removed from the



PROPAGATION OF VINES AND OTHER FRUITS. (See descriptions.)

**The Narcissus.**—Most of the garden varieties of the Narcissus are easily cultivated, for they grow well in any good soil, either in beds, borders, or on the outlying parts of the lawn or pleasure-grounds where the grass is not cut until their leaves have had time to ripen off in June. June and July are the best months for digging and replanting; it is always best to dig the bulbs when the leaves turn yellow: This should be done early, and in all cases before the young roots appear from the base of the bulbs. Although annual digging and replanting are practised by trade growers, they are not necessary in private gardens, except for bedding or flower-garden displays. On ordinary borders the strong-growing kinds may be allowed to remain from two to four years with advantage.

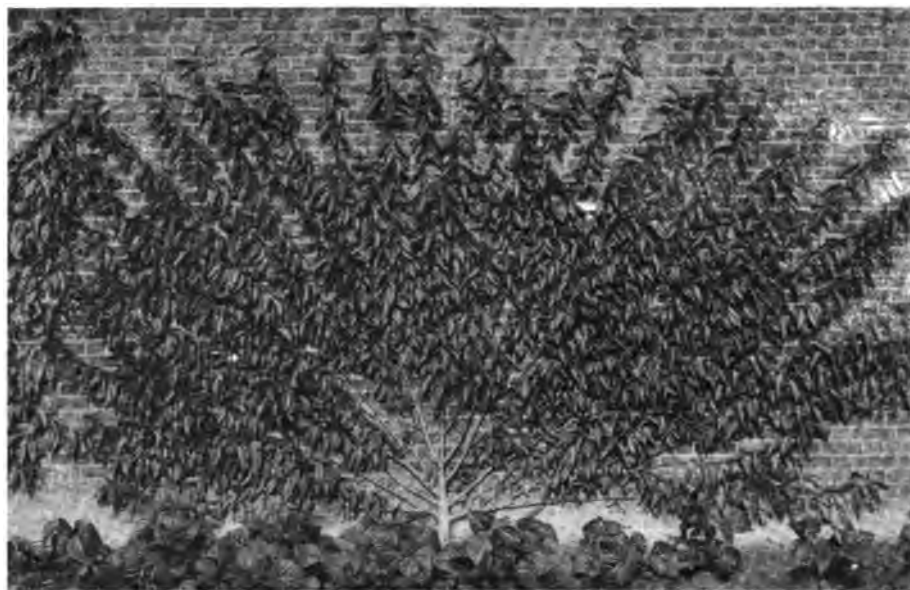


Delicate varieties are best dug and replanted in fresh soil every year. Narcissai are readily increased by side bulbs or offsets, which should be taken off at planting-time. Many varieties are well suited to pot culture, and are very effective for early spring flowering in the greenhouse. Paper White and Double Roman are suitable kinds to flower at Christmas in the conservatory. The bulbs should be potted in July or August, four or five in a pot; they should then be plunged in a shady yard or border until well rooted. Those for early bloom must be sheltered in a pit or frame slightly heated in frosty weather, removing them to the greenhouse or conservatory as they may be required, always remembering that the less fire-heat applied the stronger will be the blooms. When large quantities are required for cut flowers, the bulbs may be packed nearly close together in shallow boxes, and forced as required. Of late years very fine effects have been created in gardens by the bold and artistic grouping of these bulbs on the grass. In most gardens the natural increase of stock will supply the necessary bulbs. When planting out Narcissai or other bulbs in grass, it should be the aim to make them look as natural as possible.—J. G.

### THE TOWN GARDEN.

*Peach Trees in the Suburban Garden.*—The accompanying illustration shows how a Peach tree should be trained; it will be seen that the tree is full of young shoots which come from the base and centre. The Peach bears its fruit upon the previous year's growth, therefore the more one-year-old shoots the tree has the better will be the prospect of a crop. The way to obtain young shoots is this: In the spring the buds burst into growth, and some, in fact a great many of them, must be rubbed off when they are small, otherwise the tree would become overcrowded with growth. Rubbing off the young growths is called "disbudding," and one of the most important points to remember in doing this is to leave a good shoot near the base of the older one from which it springs. If the one right at the base is poor and does not seem as though it would grow, rub it off and leave a better one just above it. This will develop during the summer, and the following year will bear flowers and fruit, while the older shoot from which it arose will be cut out to make room for it. The same practice must be applied to each of the shoots. If a good shoot as near the base of the old one as possible is allowed to remain and develop, the tree will always have a large quantity of one-year-old growths that will bear fruit freely. The best time to cut out the older shoots which have borne fruit is in the autumn after the fruit is gathered. In disbudding one must not rub off all the little shoots on the same day, but a few at a time. At the final thinning you should have the all-important shoot at the base of the older one and one at the apex, which also is very important, for without it the older shoot would die without fruiting. There is usually room for one or perhaps more other shoots; these should be left wherever there is a vacant space on the wall. The branches of the Peach tree ought to be trained about 2 inches or 3 inches apart. The Peach may be grown quite well in a small suburban garden if it is planted against a wall facing south or south-west.—T.

*The Bladder Senna (Colutea arborescens).*—This shrub is much neglected by planters, especially in and near towns, and yet it grows and flowers in smoke and dust that would kill many other plants. On the banks of the North London Railway, between Highgate and Broad Street Stations, a good many Bladder Sennas are growing, and they thrive and flower freely in spite of the dirt and smoke caused by the frequent passage of trains. If it will thrive where even grass will hardly grow, it is well worthy the attention of



HOW A PEACH TREE SHOULD BE TRAINED.

the town planter. There are numbers of beautiful shrubs that will barely live in a town, and where one can be found that does not seem to be affected by smoke and dust, it should be used. It is also a plant that does not need much watering, as it sends its roots deeply into the soil, and so finds moisture where another and shallower-rooting plant would die through drought. *C. arborescens* is a handsome plant with slightly glaucous leaves, and bright yellow, pea-shaped flowers produced in July and August. J. CLARK, *Bagshot*.

*Roses in Tubs.*—The possibilities of plant cultivation in tubs are almost endless. Roses, climbing Roses especially, do splendidly when grown in this way; in fact, they may often be more successfully established in the garden in this way than when planted directly in the border. Supposing one has a fence or wall against which one wishes to plant a climbing Rose and the border soil is not satisfactory, the Rose may be planted in the tub, giving it, of course, good soil and proper drainage, and plunging the tub in the ground. If frequent top-dressings of rich soil and manure are given after the first year, a climbing Rose will attain large dimensions, even when its roots are restricted to the narrow limits of a tub. In this way you may grow a climbing Rose, Clematis, or Honeysuckle if the tub is plunged in a gravel walk. This method of culture, however, should be chiefly regarded as a means for giving the plants a good start rather than for their permanent establishment. With this end in view, when the tubs are plunged in the ground, holes should be made in the sides and in the bottom, so that the roots may find their way eventually into the border. By doing this the plants are almost certain to make a good start, whereas if planted out directly into the border soil they might take much longer in gaining a good root-hold. While the plants are still rooting in the soil in the tub the border soil may be improved by digging and manuring. Any of the strong-growing climbing Roses might be treated in this way. Of course, if the border soil is well tilled and in a proper condition for planting, there would be no need to plunge the plants in tubs, but often when one takes to a garden in the suburbs, the soil leaves much to be desired, and Roses planted in it would probably take some considerable time to become established. It is in such a case that this method of planting the Roses in tubs would be of particular value.

*Lilies in Tubs.*—As has often been pointed out in these columns, plants grown in tubs are most valuable to the town and suburban gardener. His space may be so restricted that he is not able to make beds and borders for all the plants he would like to grow, but, by having recourse to tubs, space that would otherwise be wasted can be made use of to great advantage. Several different plants lend themselves particularly well to cultivation in tubs. One of the best is the Sweet Pea, which was referred to recently. The Sweet Pea is, of course, a favourite with everyone, but as it is practically over by the end of July, one may well have some Lilies in tubs to flower during the late summer months. Those most suitable for the beginner are *Lilium tigrinum* (the Tiger Lily) and *Lilium speciosum*. It is not yet too late to plant bulbs of both of these, and they may be obtained more cheaply now than in the autumn. See that the tubs have holes in the bottom, and are provided with drainage in the shape of broken pieces of flower-pot or clinkers; cover these with rough soil, and then fill the tubs to within 8 inches of the top. Allowing a space of 2 inches for the purpose of watering, this will allow the bulbs to be planted 6 inches deep. The soil should be sandy and fairly light; turfy soil, with some leaf-mould and plenty of sand, make an ideal soil for these Lilies. Make the soil moderately firm, cover it with sand, and gently press the base of the Lily bulbs into it. The bulbs should be planted about 3 inches or 4 inches apart. Cover with sufficient soil to bring the surface within 2 inches of the rim of the tub, but do not make it firm; simply press down gently with the fingers. If the soil is moist it will need no water for some time; in fact, if the tubs are out of doors no water will be needed until the warmer weather of early summer; then, of course, as the soil gets permeated with roots and the sun becomes strong, more water will be needed. Great care must be taken not to allow the plants to suffer for want of water. As the stems grow they will need to be carefully and neatly staked to prevent their being blown about, and, perhaps, broken. The tubs should be placed in a half-shady part of the garden; the Lilies will do better there than in the full sun. In August and September the plants ought to be in full flower; then, if placed within full view of the room window, they are most delightful objects. *Lilium speciosum* may often be had in flower even in October. If you cannot afford to buy ornamental tubs which are specially made for the cultivation of plants, cheaper ones can easily be had.



## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**Z**ONAL PELARGONIUMS that were propagated in the autumn from cuttings placed thickly in boxes or pots, for convenience of storing in winter, should be potted singly now. Three-inch pots are the most useful for this purpose, as they take up little room, and for most bedding plants they are considered large enough. If exceptionally fine plants are required, they can be secured by shifting them again into 5-inch pots some time in April. A compost of loam, leaf-mould, and sand suits them well. Avoid using old soil from rubbish heaps and potting benches, with the idea that anything will do for bedding plants—a mistake that often happens, and one that accounts for the difference between good and ordinary plants at bedding time. When the plants are potted find room for them where they can have the benefit of a little heat for a few weeks until they are well rooted. A vinery or early peach-house is a suitable place, as they will receive just the requisite warmth to encourage free root action.

**PITS AND FRAMES.**—Hardy plants that were propagated in the autumn, such as Saxifragas and Aubrietias, should have as much air as possible to harden them, with a view to planting out at the first favourable opportunity. Violas and Calceolarias rooted closely together in cold frames during the winter will now require transplanting, allowing them more room. They may also be pinched back to induce them to make sturdy bushy plants. Lobelia speciosa, also L. cardinalis, or the fulgens group, wintered in pots may be divided and dibbled into boxes filled with a light, sandy soil. Treated in this way they make much better plants than when grown in heat.

**MONTBRETIAS** are generally treated as hardy plants, especially on light, sandy soils. Consequently they are usually planted on borders and left undisturbed. Very quickly they form large masses of weak growths, resulting in a few poor blooms. This system of culture has prevented the Montbretia from becoming as popular as it deserves to be. Montbretias are best treated as bedding plants. If the culture recommended in *THE GARDEN* for September 16, 1905, has been followed, good strong plants should have resulted from the stolons that were pricked in boxes or cold frames. These should now have all the air possible, by removing the lights on all fine days, and leaving them tilted at night when there appears no danger of frost. Any new or scarce varieties that were potted in the autumn with the stolons attached will have made good growth by now. These should be shaken out of the pots. The stolons will have formed roots, and may be detached from the parent bulbs, and planted in boxes, to be again placed in cold frames. These will make good plants for planting out in April, and will flower earlier than the plants that were left in the border all winter. To subject Montbretias to hot-house treatment at any time, thinking thereby to hasten the growth, or with the idea of increasing the stock, is quite a mistake, as they will not grow so strongly or so fast in heated houses as they do in cold frames.

G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**ZYGOPETALUM MACKAYII** and **INTERMEDIUM** have now passed out of flower, and will begin to make new roots from the base of the young growths. Plants that require repotting or resurfacing with new material should be attended to at once. Any that were repotted last season will only need renewal of the surface compost.

Prick out the old material to the depth of 1 inch or so with a pointed stick, and replace it with fibrous loam, peat, and living heads of sphagnum. Others that require repotting should have all the worn-out compost removed from the roots; replace it with new material consisting of two-thirds fibrous loam and one-third leaf-soil, intermixed with finely-broken crook and silver sand. The new pot should contain about one-third its depth of crook drainage, over which place a little rough material, then work between and about the roots the compost advised, and place some large crooks vertically in the centre during the operation. Surface with living heads of moss, peat, and fibrous loam, and keep the base of young growths just below the surface. Place them in a light position in the intermediate house, and water carefully for a few weeks until the roots take to the new material; but during the growing season they should not be allowed to suffer from lack of moisture at the root.

**ODONTOGLOSSUM CITRINUM.**—The young growths of this beautiful species are advancing, but water should be withheld until the flower-spikes are visible, or they may fail to flower. As soon as the spikes appear, they should be given a good soaking to plump up the pseudo-bulbs, which have shrivelled through being kept dry. When they pass out of flower is the time to repot them, but this should not be done unless it is really necessary, as they grow freely in the same compost for several years without being disturbed. Use pans or baskets (teak) and suspend them from the roof, pot moderately firm, with two parts fibrous peat to one of moss, with some small crooks and silver sand added. The coolest end of the Cattleya house is a suitable place in which to grow them.

**EPHIPPONITIS VEITCHII** (*Sophrontia grandiflora* × *Epidendrum radicans*).—This pretty little bigeneric hybrid is nearly always in flower if grown well. The habit of the plant is exactly like that of *E. radicans*, excepting that the influence of *Sophrontia grandiflora* has shortened it considerably. It grows well with us in the intermediate house in pots on the stage, and also in pans suspended from the roof, in a mixture of equal parts of fibrous peat and chopped sphagnum, with a little leaf-soil and silver sand added. Should any require repotting, the present is the most suitable time to attend to them. Like *E. radicans* it is continually making top growths. These should be cut off, and five or six pieces potted together. They soon become established, and consequently the stock is very easily increased. To get good spikes with a dozen or more blooms, one must encourage the growths whose roots are able to penetrate the soil.

**CATTELEYA TRIANA** is a very interesting plant. At the present time many of them are advancing their flower-spikes, and should be given all the light available; they require rather more moisture at the root. Any excess of moisture to the roots of Cattleyas should be guarded against at this time of the year, but when the compost becomes in a dryish condition sufficient should be given to moisten it through. W. H. PAGE.

Chardwar, Bourton-on-the-Water, Gloucester.

### KITCHEN GARDEN.

**ONIONS.**—As Onions require a long season of growth to ensure fine bulbs, I place more importance on getting the main Onion crop sown earlier than any other. Onions make a good succession to Celery. The ground having been well manured the previous season for the Celery, it will only be necessary to dig with a fork, making the surface as level as possible. Where it is not convenient to arrange thus, the ground should have been well trenched and manured last autumn. Give now a dressing of soot and salt, and lightly fork it in, choosing a fine day for the operation; should a storm of rain come on whilst this is being done, it is better to leave it until the surface is dry than to tread the ground when

wet. During unsettled weather it is sometimes necessary to fork the ground three or four times to get it into a good condition for sowing. Tread the bed carefully and firmly all over, then rake with a wooden rake, removing big stones and hard lumps of soil. The drills should not be less than 1 foot apart—14 inches is better where space will allow—and shallow, less than 1 inch if possible; if much deeper a great many thick-necked Onions will be sure to result. Sow the seed evenly, filling in with the feet, again treading lightly, and finish off with the rake to make all neat and tidy. Unless wanted for use very early, Onions for pickling may be left for another month; these latter should be sown in drills rather thickly, the drills being 10 inches apart.

**SHALLOTS AND GARLIC.**—Shallots and Garlic may now be planted; ground prepared as for Onions is suitable. Divide the Shallots, inserting the single bulbs or cloves in the ground, so that the top of the bulb is just visible. Garlic should be divided in the same manner, but planted a little deeper, covering the bulbs with the soil. The rows 1 foot apart, and the bulbs 9 inches in the row, are good distances for planting.

**LEeks.**—If sown at the same time as Onions, and treated in the same manner as regards sowing, these will do very well up to the time of transplanting.

**POTATOES.**—Where the sets are ready a planting of early Potatoes may be made outside on a narrow, warm border, which should have been prepared for this crop. Leave no more than two or three growths on each set, and plant with a trowel or spade, in rows 2 feet apart and 1 foot between the sets. Cover with fine dry soil if the natural soil is wet and heavy. May Queen, Sharpe's Victor, and Improved Ashleaf are good varieties, coming in with us in the order named.

**MUSTARD AND CRESS.**—For keeping up a constant succession of Mustard and Cress a sowing must be made each week. Shallow boxes of about 2 feet by 1 foot and 3 inches deep are suitable; cover the bottom with rough material, and fill the boxes with fine soil. Sow each separately and fairly thick, give a good watering through a fine rose, place the boxes in a temperature of 55°, and cover with paper until germination has taken place. On no account cover the seeds with soil. It will be ready to cut in about seven or eight days after sowing.

Prick out into boxes as required seedlings of Cabbages, Cauliflowers, and Lettuces, using a rich soil. Place the boxes in a warm situation until the plants are well established, then gradually harden off before planting out in the open.

J. JAQUES.

Bryanston Gardens, Blandford.

### FRUIT GARDEN.

**THE FIG.**—Out of doors the Fig is not a success, unless in the more favoured districts of Scotland as well as England. However, in many parts even in the North of Scotland it is found bearing good crops of fruit almost yearly; but it is necessary to protect the trees during a continued severe frost, removing all protection as soon as the frost is over. A wall with a south or south-west exposure should always be chosen. The shoots may now be thinned out, as any overcrowding produces thin and weakly shoots. Old-established trees will require to have a branch or two cut out annually to encourage the production of fresh young shoots from the base. As Fig trees on walls are very liable to the attacks of red spider, it would be advisable at this season to wash the wood with a mixture of soft soap and flowers of sulphur, made of the consistency of paint, choosing a mild day for the operation. The roots should be curtailed if they show the least sign of making gross growths. The border should consist of rather poor soil of a stony nature and be made very firm, and the root area should be confined by means of stones or bricks.

**STRAWBERRIES.**—If new plantations are to be made in spring the ground should be trenched

and heavily manured. A suitable distance to plant is 2½ feet between the rows, and 18 inches between the plants. I prefer to plant pot plants forced, say, in the month of May; in the following two seasons these will bear abundant crops, but where forcing is not practised, or in the case of late varieties, the best plan is to plant in March from layers that have been prepared the previous autumn, suppressing all the flower-stems during the first season. It is seldom good practice to retain Strawberries for more than two or three seasons. Make a fresh plantation every year. I do not recommend a heavy mulching of manure for these, owing to the encouragement it gives for harbouring slugs, preferring a good dusting of soot between the lines and a watering of liquid manure from the cow-sheds during the winter.

**FIG HOUSE.**—The early Fig house will now be showing both fruit and leaves. Keep up a moist, warm atmosphere. The roots must be confined to a limited space, and if the soil is, as usually recommended, of a poor nature, give frequent waterings of weak and warm liquid manure. The temperature should be about 60°, rising with sun-heat to 70° or 75°. Another house may now be started by keeping a night temperature of 50°, rising 10° during the day, and affording the trees a thorough watering at the roots.

**MELONS.**—Plants raised from seeds sown since the beginning of the year are ready for placing in their fruiting quarters. Where beds are used, if of sufficient depth 1 foot or more of fermenting manure should be put in the bottom, adding the soil, which should consist chiefly of loam; make it moderately firm, raising it into little hillocks on which to plant. Let the soil get warm before planting, and well water each plant before turning it out of the pot. Fasten each to a short stake reaching up to the first or second wire, and water with tepid water through a rose, after which no watering will be required until the roots have got a good hold of the soil. If slugs are about, place a ring of dry soot or lime round each plant. Lightly syringe the plants on fine afternoons, closing the house early to benefit by as much sun-heat as possible.

**CUCUMBERS** require much the same treatment in their early stages as Melons, except that the soil may be lighter and richer. Seeds may be sown for succession as occasion demands, reckoning, in the case of Melons, three months from the date of sowing to the date of ripening.

THOMAS WILSON.

Glamis Castle Gardens, Glamis, N.B.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

### ROSE GARDEN.

**SUNK ROSE GARDEN (L. M. Bedford).**—We think a bed 31 yards long would be too long. We should prefer to divide it up into three beds, or even more than that. You could then plant each bed with a different variety, and the effect would be much better than if all the Roses were in one large bed. You should certainly have beds on either side of the stone steps. Good Roses for the pergola are Mme. Alfred Carrière, Flora, Reine Olga de Wurtemberg, Crimson Rambler,

Mme. d'Arbly, Aimée Vibert, Félicité Perpétue, Bennett's Seedling, Dorothy Perkins, and Longworth Rambler. Among the Damask, Provence, and Moss Roses you should have common and white Provence, Blanche Moreau, Crimson Globe, common Moss, White Bath, Perpetual White Moss, Mme. William Paul, Little Gem, Gracilis, Crested Moss, York and Lancaster, Red Damask, and Mme. Hardy. Roses for planting on top of wall are the Dundee Rambler, The Garland, and wickiana varieties.

**Nemo.**—Roses for flowering under glass should be potted up from the open ground as soon as they have lost their leaves in the autumn.

**J. G. G.**—You may prune the rambling Roses now, but leave the standards and dwarfs until towards the end of March. Leave the shoots that were made last year their full length if they are hard and well matured. If the ends are soft and pithy cut them off, but if the long main shoots have any lateral shoots cut these back to within 1 inch or 2 inches of the base. You may even now possibly notice young growths just starting from the base of the plant; cover these with soil to prevent their being cut by frost.

**P.**—If the Gloire de Dijon Rose is a comparatively young tree, it will require but little pruning. You should preserve nearly their entire length all long shoots made last season. The small side shoots or laterals that spring from older growths should be cut back to about 1 inch to 6 inches, the strongest being cut least. Spread out the shoots well, and if some are trained almost horizontally they will blossom all the better. Tea Rambler should be very sparsely pruned. If the shoots are solid, i.e., ripe, you can preserve them a considerable length, but if soft and pithy and easily bent, cut such growths clean out to their base. Should space be limited, this Rose will flower well if its lateral shoots are cut back to within 2 inches from whence they spring, but if it is desired to spread out the growths do not prune much.

### THE GREENHOUSE.

**PRIMULA OBSCURICA (Nemo).**—There is no difficulty whatever in the culture of Primula obscurica, and it is quite impossible to say how it is you fail. Seed may be sown early in the spring in a warm greenhouse, and as soon as the plants are large enough to handle they should be pricked off into a compost made up of equal parts of loam and leaf-mould, with some sand. When the young plants are again crowded they must be potted singly into small pots, and when sufficiently advanced it will be necessary to again shift them into the flowering pots, of 4½ inches or 5 inches. Give the last potting in July. Throughout the summer put them on a bed of ashes in a cold frame, and shade from the sun during the hottest part of the day. In the winter give them a light position in the greenhouse, supplying water when necessary. Old plants may be divided in the spring into single crowns, potted into small pots, and placed in a gentle heat. In this way they will soon grow. This Primula is essentially a greenhouse plant.

**STREPTOCARPUS (Nemo).**—The different kinds of Streptocarpus are raised from seeds, usually sown in a temperature of 55° to 65°. Loam, leaf-mould, and sand, all broken up and well mixed together, form a suitable soil in which to sow. Give a slight sprinkling of silver sand over the surface, and lay a pane of glass on the top. Then stand in a shady corner, and wipe the glass each morning in order to prevent damp. When large enough to handle the young plants must be pricked off into pots or pans. Afterwards they may be potted singly into small pots, in which they will pass the winter, or those that have made good headway may have a shift into pots 5 inches in diameter, in which they will flower, but the majority may well be left till the spring of the second year. Throughout the summer they will need no fire-heat. During the winter these Streptocarpi may be kept in a structure where a minimum temperature of 45° is maintained, and at that season the plants should be given just water enough to keep them fresh, but especial care must be taken to guard against over-watering. In spring shift into 5-inch or 6-inch pots according to their vigour. In these they will bloom. Remove the flowers as soon as they decay.

**A FRAME PROPAGATOR (Rectory).**—It is always best to put a propagator in a greenhouse. The temperature should be from 60° to 65°. As to the seeds which it may be desirable to sow in the propagator, give first place to Asters, Stocks, and other half-hardy annuals. If you have room you can sow a few 5-inch pots with Sweet Peas, putting seven seeds into a pot. You may also sow a few pots of everlasting, Grasses, and Canary Creeper. All other Sweet Peas, hardy annuals, and perennials will be best sown in the open ground about the middle of April, but the Sweet Peas in March. The Mignonette is quite hardy. Do not be in a hurry to sow seeds in your propagator. If you do so, growth will be weak. April is quite early enough to sow such seeds as you name, and we should almost prefer to sow them in a cold frame kept shut close and covered up at night than in a heated propagator. In all cases the pots must be a few inches from the glass over them.

**G. T. W.**—A maximum temperature during the winter of 55° is quite sufficient for the different Tree Carnations, with enough air whenever possible to maintain a light, buoyant atmosphere. If the temperature, as you say, averages 50° to 60°, the additional heat is very probably the cause of your trouble, or it may be the atmosphere is too moist; or, again, if the plants have been lately received from a nursery they may have received a check in transit. While enough water must be given to keep the soil moderately moist, an excess is very injurious. They will need but little feeding during the winter months.

**J. J. C.**—In propagating American Carnations there is a great advantage in having a brisk bottom-heat with a cool, moist surface. Care should be taken that the plants are moist at the roots before taking the cuttings. They root best in a compost consisting of equal parts loam, peat, and sand, with a little extra sand on the surface. It is important to keep the cuttings quite fresh. If taken off early in the morning, and put into the close frame before they get withered, there should be no difficulty in rooting them. They must be cut off at the joint, or when they are fresh and stiff they may be snapped off with the thumb and finger, which is better than using a knife.

**Banbury.**—Bulbous plants that are subjected to hard forcing often come with very short flower-stems, more particularly if they are taken into heat before the bulbs are well rooted. A method often successfully followed to counteract this is to invert an empty pot over the plants when they are pushing through the soil and are taken into the forcing house. The effect of this will be to cause the stems to lengthen; but, of course, the pots must be removed when the plants have attained sufficient height to be cramped thereby. As this dwarfing is in some seasons far more pronounced than in others, we think that the weather experienced during the previous summer has something to do with the matter, as, of course, in some years the bulbs are better ripened than in others.

**TUBEROSES (G. W. T.).**—You might grow your Tuberoses both in a warm house and in a greenhouse, so as to provide a succession of flowers. They will do equally well in either. If, however, you want them to flower quickly, grow them in the warm house. You may pot the bulbs singly or three in a pot, according to the size of the pot used. A soil consisting of loam and leaf-mould, with, if possible, some well-decayed manure and sand, is suitable. Before potting take off all offsets from the bulbs, for they tend to weaken the flower-spike. In potting the bulbs should be almost covered. It is a good plan to plunge the pots in Cocoanut fibre placed in a box or on slates above the hot-water pipes, so as to give them a good bottom-heat. This helps them to root. Give very little water until the roots are active. When in full growth diluted liquid manure about every ten days is beneficial.

### TREES AND SHRUBS.

**RUBUS AUSTRALIS (H. Werner).**—The Brambles are essentially plants of the Northern Hemisphere, and although common on the mountains of the tropics, very few reach the temperate regions of the Southern world. In New Zealand several of our European species have become perfectly naturalised, among which are Rubus laciniatus, one of the most beautiful of all Brambles; R. leucostachys, pubescens, and discolor, the last of these having invaded every part of the colony. The only species, however, truly native of New Zealand is Rubus australis. It is a species of particular interest, being, in the first place, one of the largest, perhaps the very largest, of all Rubi. In its native country it climbs to the top of the loftiest trees, often, according to Sir J. Hooker, associated with a climbing Fern—Lygodium. Another feature of interest in connexion with it is its extreme variability. So far as the foliage of its different forms is concerned, it varies from a practically leafless condition to one possessing the wealth of

lustrous deep green leaves of large size. It is not strictly correct, however, to speak of it as "leafless," for the leaves are always there, being made up of three, five, or more leaflets.

*Mrs. Dinesen.*—A plant of *Hydrangea Hortensis* to flower next May, as yours did last year, would have its flower-clusters already formed by last autumn when the leaves dropped. In all probability your plant needs potting, which should be done without disturbing the roots more than is absolutely necessary. As *Hydrangea Hortensis* flowers on the points of the branches, it requires, of course, quite different treatment from *H. paniculata*. The best treatment for your plant, which flowered so well last spring, would have been directly after blooming to have shifted it into a larger pot, thus encouraging vigorous growth. Before doing this any old and exhausted shoots should have been cut out. The formation of flower-buds is greatly assisted by standing the plant out of doors during the latter half of the summer, in a spot fully exposed to the sun. If the pots are well furnished with roots a little manure water occasionally will be beneficial.

## FLOWER GARDEN.

**VIOLET PLANTS DISEASED** (*Mrs. J. T.*).—Your Violet plants are badly infested with red spider, and appear also to have suffered from dryness at the root. If you have plenty of healthy, clean plants left to propagate from at the end of March, we would advise you to throw away the diseased plants, as they will not now give you any flowers. Should you, however, be depending on these for stock to propagate from at the time mentioned, the following would be the best way to bring them back to health. The spider must be killed, and the best way to do this is to syringe the plants, and, while they are wet, to dredge them thickly, both under and over the leaves, with flowers of sulphur. Allow the sulphur to remain on the plants two days and two nights. As soon as the plants are dry after the syringing, the surface soil should be taken off, giving the plants at the same time a copious watering. In a few days give the soil a top-dressing of loam and decayed manure in equal proportions, and make firm. The plants should be syringed morning and evening on fine days, giving all the air possible at all times, but protecting from frost.

**IRIS STYLOSIA** (*K. H. R.*).—With care this plant may be moved at almost any time of the year except when it is in flower. The best time, however, is just after the plants have finished flowering, and before they have made much growth. Although not a difficult plant to establish, it does not flower freely for some years after it has been moved, and plants will often go for two or more years without producing a flower after replanting. Where it is available a position should be selected at the foot of a sunny south wall, and the Iris should be planted close up against it, so that the roots are pressed against the wall. The most suitable soil is a light sandy loam with a little mortar rubbish added. Plenty of drainage should be used in the way of broken bricks. Protection during flowering-time is not needed, except to preserve the flowers from rain or snow. The type with its broad upright leaves is the first to flower, opening its blooms in December. It is followed closely by the white variety, whilst var. *speciosa*, with narrow leaves and larger, deeper-coloured flowers, does not usually bloom till a month or two later.

**WINDOW-BOX** (*F. H. Lawrence*).—You may plant Musk and Forget-me-not in your window-box if you take care not to dig up the Crocus bulbs. We should advise you, however, to take up the Crocuses after flowering and throw them away, or else plant them out elsewhere. Their foliage would be unsightly, and they are so cheap that you could easily buy a few again in the autumn. It is no use sowing seeds of Musk and Forget-me-not in the window-box at this time of year, because the plants would not flower this year. If you were to sow the seeds in the greenhouse so as to bring them on more quickly, planting them in the window-box later on, they would flower this year. Your best plan, however, will be to take up the Crocuses when they have

finished flowering and buy a few plants of Musk and Forget-me-not, planting them, say, in April. The best time to plant the Algerian Iris is as soon as it has done flowering. This is a plant that dislikes being disturbed, and probably will not flower the first year after being replanted. It likes a warm position at the foot of a sunny wall. Some of the best Chrysanthemums for flowering out of doors are the following: *Mme. Marie Masse*, lilac-mauve; *Crimson Marie Masse*, chestnut-crimson; *Harvest Home*, crimson and gold; *Ivy Stark*, orange-yellow; *Mme. Desgranges*, white; *Ryeoort Glory*, bronze yellow; and *Le Roi des Précoques*, rich crimson.

**CHRYSANTHEMUMS: COLOUR, TIME OF BLOOMING, &c.** (*H. M. S.*).—We think the following particulars regarding your Chrysanthemums are what you want:

Name and Type.	Colour.	Time of Blooming.	Height.
<i>Mrs. W. C. Egan</i> (In.)	Light pink	Nov.	M
<i>Mme. Louis Leroy</i> (Jap.)	White	Late Oct.	M
<i>Perle Dauphinoise</i> (In.)	Bronzy yellow	Nov.	M
<i>Tokio</i> (Jap.)	Red-crimson	L'te Nov. & Dec.	D
<i>Salene</i> (In.)	Boozy lilac	Nov.	M
<i>W. H. Lincoln</i> (Jap.)	Yellow	Nov. & later	D
<i>Simplicity</i> (Jap.)	White	Nov.	M
<i>Mrs. A. H. Hall</i> (Jap.)	Bronze	Oct.	D
<i>Eva Knowles</i> (Jap.)	Carmine-red	Nov.	M
<i>La Triomphant</i> (Jap.)	Lilac-pink	Oct. & Nov.	T
<i>Robert Powell</i> (Jap.)	Red-sh ch'at'n't	Nov.	M

*M.*: Medium. *D.*: Dwarf. *T.*: Tall. \* Medium to tall. The terminal buds should be retained in *Tokio*, *W. H. Lincoln*, and *La Triomphant*; first crown in *Simplicity*; and second crown in the others.

The above selection comprises many old sorts that are not in general cultivation at the present time. The buds recommended are those that will give you the best flowers, although, should you prefer a free display of decorative blossoms, you should take on the growths to the terminal buds. The plants would be taller as a consequence, however.

*C. T. A.*—The bulbs have been attacked by the Tulip mould (*Sclerotinia parasitica*). The only thing to be done is to take up any bulbs that are so attacked and burn them at once, together with the soil they are immediately surrounded with, in order to destroy the mould.

*Mrs. Dinesen.*—You should certainly pick off the seed-vessels from the Violet plants, as the production of seed will check the flowering. A bed of Violets should be divided every second year, the best time being in the month of April or early in May. Violets succeed best in a moderately shady spot.

*Nemo.*—Twelve of the best Cactus Dahlias are: *Britannia*, salmon pink; *Clara G.*, Stredwick, bright salmon; *Eva*, white; *Effective*, amber and rose; *Floradora*, deep crimson; *J. H. Jackson*, dark maroon; *J. W. Wilkinson*, rosy crimson; *Mrs. D. B. Crane*, white; *Mrs. de Luca*, orange yellow; *Mrs. E. Mawley*, yellow; *Mrs. H. L. Brousson*, salmon and yellow; *Starfish*, orange scarlet. Sown in the open air about the end of March or beginning of April, both the *Larkspurs* and *Nigella* will bloom in July, but to have them in flower earlier the seed may be sown in the middle of March in a frame, pricking off the young plants when sufficiently advanced into boxes, and gradually hardening them off prior to planting in their permanent quarters. Of *Larkspurs* there are *Butterfly*, bright blue spotted; *Branching*, mixed; *Emperor*, fine bold form; *Empress*, Carmine; and *Bannanula*, flowered. Of the *Nigella*, the best are *damaeana*, blue; *hispanica*, purple, and that delightful variety *Miss Jekyll*, which was the subject of a coloured plate in *THE GARDEN* as recently as the 6th ult. Good Chrysanthemums for outdoors are *Carrie*, *Crimson Marie Masse*, *Goacher's* *Crimson*, *Harvest Home*, *Horace Martin*, *Ivy Stark*, *Lady Fitzwygram*, *Mme. Desgranges*, *Mme. Marie Masse*, *Mrs. Hawkins*, *M. Louis Monnet*, and *Rabbie Burns*.

## FRUIT GARDEN.

**MEALY BUG ON VINES** (*Honiton*).—There are few insects more difficult to destroy than mealy bug on Vines. The insects not only get into the cracks or interstices of the bark, but deposit their eggs also, and on main stems or rods it seems only possible to cleanse them thoroughly by stripping off rough pieces. Scraping off the insects seems the only possible means of dislodging them when found, and they should fall into some receptacle. After as many as possible have been removed, constant attention in dressing the trees with insecticides is necessary, but carefully avoid buds. Potent destroyers are Fir tree oil, or a dilution of methylated spirits or paraffin, and these need to

be constantly used where the insects are found. A mixture of soft soap, clay, and turpentine, well worked into infested places on the Vines, is also a good insecticide.

**BLACK CURRANTS** (*J. W. R.*).—The stout dark shoots of Black Currant sent most resemble the woody Boskoop Giant. The light wood is not of that variety, certainly, but is probably that of Baldwin, sent in mistake. Boskoop Giant buds are red, those of the other are green. The latter, judging by the wood sent, needs hard thinning, as the shoots are crowded and weak. It is a matter for surprise that of two bushes only sent you each should thus differ. Of the two Apples sent, No. 1 is evidently Ribston Pippin, although the fruit does not much resemble samples grown in the South; but the flesh and flavour are the same. No. 2 we quite believe to be Tower of Glamis; the fruit is smaller than we see in the South, but has the same flesh; now soft, and getting a little dry.

**PRUNING FRUIT TREES** (*A. B. C.*).—Yes, your fruit trees should be pruned now, so as to originate fresh shoots in order to form a proper foundation of sufficient branches. It is better to prune now than to leave them until next season. If the Black Currants are good plants, do not out them back much; just shorten the shoots a few inches. When the bushes become established the pruning will consist of removing the older growths and retaining the younger ones their full length. Red currants need to have the side shoots spurred in. If these are good bushes do not out them hard back, but shorten the shoots and spur in the side shoots. You will probably find that your young Peaches and Plums will need root pruning in a year or two. They are apt to grow strongly for the first few years, and the only way to remedy this state of affairs is to root prune. It is no use cutting back the strong growths, for others grow still more strongly. You do not say whether the trees are already formed. If you think there are sufficient branches already, just remove the ends of the shoots, cutting to a wood bud. If you need more branches, cut back so that other shoots will grow, which you may train as desired.

**Box Hill.**—You should protect your Peach trees out of doors when they are in flower by means of canvas or even a double thickness of ordinary fish netting. You must commence disbudbing early, as soon as the young shoots are about 1 inch long. Be very careful to see that a good shoot near the base and the one at the apex are not rubbed off, for these are the most important of all. Bearing in mind to leave these alone, first rub off with the finger and thumb a shoot here and there where most crowded. Then in two or three days' time rub off a few more. Leave for a week or ten days, and give the final disbudbing. How many you must eventually leave it is impossible to say. The one at the apex and the one at the base are essential, the former to the life of the shoot, and the latter to produce fruit-bearing wood for next year. You must leave one or more shoots besides these, according to the space at disposal. If there is no room to train in more shoots, leave only the top and bottom ones. Wherever there is room train in others.

## MISCELLANEOUS.

**Someriset.**—The only real remedy is to look over the plants at least once a week, cut off all diseased leaves carefully, and burn them at once. Then spray the plants afterwards with sulphide of potassium every ten days until there is no more sign of the disease. Take great care not to over-water the plants. Sulphide of potassium is made by dissolving 10oz. of sulphide of potassium (liver of sulphur) in a quart of hot water, and diluting it with 2½ gallons of water.

*E. C. A.*—As your land is rather light you should certainly use farmyard manure instead of artificial; there is nothing better for digging in light land than well-decayed farmyard manure. We should prefer to dig in the grass, for when this is decayed it will help considerably to improve the mechanical condition of the soil. You should dig the land two spits deep, placing the manure at the bottom, and just turning over, grass side downwards, the surface soil. A rapid annual climber, suitable for forming a fence quickly, is, as you say, the Hop, or you might use the climbing *Nasturtium* or *Convolvulus*; these grow very quickly, and would give sufficient shade for your species. Sweet Peas. You might even grow some of the commoner varieties of the Sweet Pea itself. Grow them in rich, heavily-manured soil, and they will reach a good height.

**NAMES OF PLANTS.**—*W. W.*—*Ophiopogon japonicus*.—*Midlands.*—*Daphne Laureola* (the Spurge Laurel). It will grow almost anywhere.—*Dale View.*—*Acacia longifolia*.

## ROYAL HORTICULTURAL SOCIETY.

## THE EXHIBITION.

THE largest display of plants, flowers, fruit, and vegetables ever exhibited in the Royal Horticultural Hall was on view last Tuesday, the 13th inst., the occasion of the annual meeting. The Orchids were magnificent. We have never seen a more delightful exhibit, even of Orchids, than that from Major Holford, which was awarded both the gold and Lindley medals. The plants were well grown and finely flowered, and they were most attractively arranged. The group of Dendrobiums from Jeremiah Colman, Esq., was also a very fine exhibit indeed, and was deservedly given a gold medal. Another feature was the extensive and interesting collection of Potatoes from Messrs. Sutton and Sons, which also obtained a gold medal. The winter-flowering Carnations made a charming display, and added largely to the beauty of the show.

## FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Drury, H. B. May, R. C. Notcutt, G. Nicholson, J. Green, G. Reuther, C. J. Salter, James Douglas, J. F. McLeod, Charles Jeffries, William Howe, J. Jennings, C. Bick, C. Dixon, W. Bala, W. P. Thomson, R. C. R. Nevill, A. R. Godwin, Charles E. Pearson, Charles E. Shea, William Cuthbertson, E. H. Jenkins, W. J. James, George Paul, H. J. Cuthbert, R. W. Wallace, R. Hooper Pearson, and the Rev. F. Page-Roberts.

Hardy plants were a leading feature at this meeting, and many charming collections were noted. That from Messrs. W. Cuthbert and Sons, Highgate, embraced a great variety of plants, some of the more notable being *Corydalis angustifolia*, *Fritillaria pudica*, *Tulipa Kaufmannii*, *Rhodora canadensis*, a charming plant with rosy mauve flowers, *Polygala chamaebuxus purpurea*, a pretty colony of *Saxifraga oppositifolia*, and *S. bursleriana* major, with iris sindjarensis, *I. persica*, and many more. *Adonis amurensis* was very charming, and several flowering shrubs added their beauty and fragrance. Silver-gilt Flora medal.

Mr. William Hayward, florist, Kingston-on-Thames, showed a collection of cut shrubs, such as *Abies*, *Retinospora*, *Mahonia*, *Galax aphylla*, *Garrya elliptica*, &c. The Misses Hopkins, Mere, Cheshire, showed Alpines and other early flowers such as *Primroses*, *Hepaticas*, *Daphne blagayana*, *Christmas Roses*, *Veronica*, &c.

Messrs. W. Paul and Sons, Waltham Cross, staged a grand lot of Camellias in pots, the crimson and scarlets with the pure whites against the glossy, ample foliage making a rich and telling display. Silver-gilt Flora medal.

Messrs. J. Hill and Son, Lower Edmonton, contributed a splendid exhibit of Ferns, some noble examples of *Asplenium lucidum*, *Davallia filifolia robusta*, and *Polypodium glaucum giganteum* being noted among many fine things. Silver-gilt Flora medal.

Messrs. John Waterer and Sons, Limited, Bagshot, Surrey, staged a capital lot of shrubs, as *Hollies*, *conifers*, and the like. The species of *Osmanthus* were very attractive, and so, too, was the charming *Ilex crenata variegata*, a lovely thing for rock work. *Rhododendron praecox* was very fine in colour and form.

Hardy plants from Messrs. Wallace and Co., Colchester, included *Saxifraga bursleriana* major, *Snowdrops*, *Iris Tauri*, *I. galatica* (a curiously-coloured form), *I. Heldreichii*, and several of the spring-flowering *Colchicums*, among which *C. crociflorum* was notable.

Messrs. Barr and Sons, Covent Garden, had *Iris reticulata*, very fine, also *I. stylosa*, with many *Lenten Roses* and some choice forced *Narcissus*. *Lachenalia*s were also good and well grown.

A very interesting gathering of greenhouse plants came from Mr. H. B. May, Edmonton, and included *Primula kewensis*, *Camellia Donkelaar*, C. Chaudleri elegans, *Thysanotus rutilans*, with trailing or weeping branches of scarlet flowers, and a lovely lot of the new winter-flowering *Pelargonium Clorinda*. Many good Ferns were shown. Bronze Flora medal.

The *Cyclamens* and Chinese *Primulas* from Messrs. Sutton and Sons, Reading, were a very beautiful lot, the latter, in many shades of colour, quite filling one of the long centre tables. Brilliant King, Improved White, Crimson King, The Duchess, Cambridge Blue, Reading Blue, and Lord Roberts were very beautiful and distinct. Equally good in their way were the beautiful *Star Primulas*, of which the semi-double Ruby is a great gain. Pearl is also a fine white, and White Queen a good and shapely flower. The semi-double varieties were equally good, and all were remarkable for their compact and uniform growth. *Cyclamen Sutton's Cerise*, a silvery-leaved kind, was in fine condition, a large batch of plants being staged. Silver-gilt Flora medal.

Messrs. Ware and Co., Limited, Feltham, Middlesex, had a group of hardy plants that included many choice *Saxifrages*, *Primula obconica*, *Lithospermum rosmarinifolium* (a lovely bit of blue), *Iris stylosa*, *Lenten Roses*, *Cheiranthus kewensis*, and others. A most interesting array. Silver-gilt Flora medal.

Messrs. Cannell and Sons, Swanley, had a capital lot of *Primulas*, of which Swanley Blue, Cannell's Blush Pink, Cannell's White, and Carmine were all good and distinct. There were many varieties shown, and these in distinct colours. Silver-gilt Flora medal.

*Eupatorium petiolare* and a set of cut trusses of *Cactus Pelargonium*s were exhibited by Messrs. W. and J. Brown, Peterborough.

*Tulips* and *Daffodils*, with *Hycinth*s in pots, came as an exhibit from Lady Tate, Park Hill, Streatham Common (gardener, Mr. William Howe). Silver-gilt Flora medal.

The Goldford Hardy Plant Nursery had a small collection of alpine and allied plants in pots. The hardy Heaths and *Cyclamen Coum* were very beautiful as seen in small pans.

Mr. John E. Box, Croydon, had a group of *Begonia Gloire de Sceaux*, with others of the Rex section, interspersed with *Palms* and *Grasses*.

Mr. George Reuther, Keaton, Kent, had many beautiful hardy and alpine plants, such as *Saxifraga longifolia*, *Iris hispidoides* major, *Crocus Imperati*, *C. ancyrensis* (a rich gold), C. Sieberi (a beautiful mauve), pretty tufts of *Hepaticas*, *Primula megastefolia*, many choice *Saxifrages*, as *S. Salomoni*, *S. Boydii alba*, and others. Some few *Rhododendrons* were also noted in flower. Bronze Flora medal.

Messrs. J. Peed and Sons, Norwood, had a small lot of alpine in pots, together with a few *Narcissus*.

Messrs. E. and G. Cuthbert staged a magnificent group of forced hardy shrubs, in which the hardy *Azaleas* predominated. Of these there were bush plants and standards in many varieties, charmingly interspersed with, in some instances, the bronzy foliage of *Acer*. *Wistaria* in good bloom, *Magnolia alba superba*, resplendent, with rosy red and white goblets, made a fine display, while *Laburnums* and many others added their quota of charm to the whole. Silver-gilt Flora medal.

Messrs. E. S. Williams and Son, Holloway, had a display of forced shrubs, such as *Lilacs* in variety, *Azaleas*, double *Prunus*, *Guelder Rose*, and the like.

Messrs. William Bull and Sons, Chelsea, had a small exhibit of *Aralias* of the A. Veitchii section, A. triloba, A. leptophylla, &c., a very pleasing lot of well-grown plants.

Messrs. Hugh Low and Co., Enfield, had a good group of *Cyclamen Low's Salmon*, together with white and other distinctive shades. Silver Banksian medal.

Mr. W. Palmer, Andover, showed *Primula sinensis* in quite small pots.

A very interesting assortment of cut shrubs and the like came from the gardens of Sir E. G. Loder, Bart., Horsham (gardener, Mr. W. A. Cook). *Azara integrifolia*, yellow, was very interesting. Other things included *Snowdrops*, *Colletias*, *Olearia nummulariifolia*, *Andromeda Catesbaei*, with bronzy foliage, and others.

Messrs. Veitch and Sons, Limited, Chelsea, had a nice lot of plants of *Cheiranthus kewensis*, *Eupatorium vernale*, *Coleus thyrsoides*, C. shirleani (a new species), *Cilanthus punicus albus*, and *Primula kewensis* (very fine). Bronze Flora medal.

Messrs. Paul and Son, Cheshunt, showed forced *Lilacs* in several varieties.

Mr. L. R. Russell, Richmond, had a large and well-grown group of forced shrubs generally, *Lilacs*, *Guelder Rose*, *Azaleas*, and other plants. Bronze Flora medal.

## CARNATIONS.

The new winter-flowering American Carnations were largely shown. Messrs. Cuthbert and Sons, Highgate, staging a lovely lot of blooms in really splendid form. Tall vases and short vases were well filled with the best kinds, of which *Enchantress*, *President*, *Nelson Fisher*, *Lady Bountiful*, *Mrs. Lawson*, and *General Kuroki* (scarlet) were apparently the best and most distinct. The *Malmalson* variety *Princess of Wales* was splendidly shown.

Messrs. T. S. Ware, Limited, Feltham, also showed Carnations very finely, *White Lawson*, *Harlowarden*, *Lady Bountiful* (very fine white), and *Flancée* (pink) being among the best.

Mr. A. F. Dutton, Iver, showed in his usual attractive way Governor Wolcott and Lillian Pond (white), *White Lawson*, *Fair Maid*, and *Christmas Eve* (a capital red-flowered kind). Silver-gilt Flora medal.

Probably one of the finest exhibits of these flowers was that from Mr. C. Englemann, Saffron Walden, Essex, whose exhibit was of a most graceful character. *White Lawson*, *Flamingo*, *The Belle* (white), *The Cardinal*, *Enchantress*, *Flancée* (pink, very fine), and *Lady Bountiful* (white) were all superbly shown. Gold medal.

Messrs. Hugh Low and Co., Enfield, showed *Liberty* (scarlet) and *Coronation* (cerise) of a distinct type of growth. This firm also exhibited a good collection of the best-known kinds.

Mr. H. Mathias, Medstead, Hants, also showed Carnations, the group containing excellent blooms of *Mrs. Leopold de Rothschild*. Bronze Banksian medal.

Mr. S. Mortimer, Farnham, Surrey, contributed a fine assortment and in capital form. The collection was quite a representative one, *Mrs. W. A. Patten*, a striped variety, being the most recent novelty. Silver-gilt Banksian medal.

Messrs. Dodd and Lancaster, Guernsey, obtained a silver Banksian medal for a small set of Carnations, *Mrs. T. W. Lawson* and its white variety, with *Enchantress* being well shown. Silver Banksian medal.

Mr. H. Burnett, Forest Road, Guernsey, obtained a silver Flora medal for a good group, of which *Mrs. H. Burnett*, a lovely shade of pink, was well shown. The *Belle*, *Mrs. Lawson*, *Enchantress*, and *The President* were all finely shown.

## NEW PLANTS.

*Carnation Mrs. H. Burnett*.—A lovely Carnation, more like *Miss Jolliffe* in shade than any we have seen. The pale coral pink flowers are very beautiful. From Mr. Burnett, Forest Road, Guernsey. Award of merit.

*Asparagus Colmanii*.—A very dwarf and delicate-looking kind, with exceedingly small linear leaves. The entire plant is not more than 1 foot high as shown. From Jeremiah Colman, Esq., Gattopark, R-igate (gardener, Mr. Bound). Award of merit.

*Lachenalia Brightness*.—A very bold and showy form, coloured a pale orange, with reddish crimson expanding mouth. From Mr. F. W. Moore, Botanic Gardens, Glasnevin. Award of merit.

## ORCHID COMMITTEE.

Present: Mr. J. G. Fowler (chairman), Messrs. James O'Brien, Harry J. Veitch, H. Little, W. Boxall, H. A.

Tracy, W. H. Young, H. G. Alexander, F. J. Thorne, T. W. Bond, H. Ballantine, W. H. White, S. Briggs-Bury, J. Charlesworth, Arthur Dye, A. A. McBean, R. G. Thwaites, H. G. Morris, H. T. Pitt, F. Sander, Walter Cobb, E. Ashworth, G. F. Moore, F. Menteth Ogilvie, Francis Wellesley, W. A. Biley, R. Brooman White, de B. Crawshaw, Jeremiah Colman, and Major G. L. Holford.

Major Holford, C.I.E., C.V.O., Tetbury, Gloucester (Orchid grower, Mr. Alexander), exhibited a charming group of Orchids full of rich, bright colouring, the plants being most tastefully displayed. In the centre plants of *Laelia anceps* in several varieties were arranged above a small group of the rich scarlet-flowered *Sophronitis grandiflora*. Masses of *Cypripediums* on either side included many of the best, such as C. Euryades, G. F. Moore, *lathamianum*, *Scipio*, and others. Towards each end were distinct groups of *Odontoglossums* and *Cattleyas*, with here and there some finely-flowered plants of *Coleogyne oricata*. *Palms*, with graceful racemes of *Odontoglossums* and *Phalenopsis* peeping through the leaves, made a delightful background to one of the most attractively-arranged groups we have seen. We have not space to enumerate the many choice varieties contained, but the group was full of them. Gold and Lindley medals.

The exhibit of Orchids by Jeremiah Colman, Esq., Gattopark, Reigate (gardener, Mr. W. P. Bound), filled one end of the hall, making a magnificent display. The group consisted almost solely of *Dendrobiums*. It was estimated to contain 500 Orchid plants, representing some 10,000 flowers. With the exception of the background, which was of *Palms* and other foliage plants, *Calanthe* and other graceful Orchids, this bank of flowers was made by *Dendrobiums* in wonderful variety. The prevailing colour of the forms shown was mauve in various shades, which were effectively relieved by white, yellow, and deep purple shades. All that is best among *Dendrobiums* was here displayed. Gold medal.

G. F. Moore, Esq., Chardwar, Bourton-on-the-Water (gardener, Mr. H. Page), showed a small group of *Cypripediums* that contained some beautiful and choice sorts, e.g., C. Amy Moore var. *splendendum*, *Sallieri aureum*, *lathamianum* Leo var., G. F. Moore, *Bridget nitens superbum*, *Sunrise*, *Troilus*, *aureum Surprise*, *Willow-Drury*, G. F. Moore *punctatissimum*, and C. *Olivia*. Silver Flora medal.

Messrs. J. and A. A. McBean, Cooksbridge, showed plants of *Laelia anceps* in several varieties, *Cypripediums*, *Odontoglossums*, and *Epidendrums*. Silver Banksian medal.

Mr. J. Cypher, Cheltenham, made a bright display with a group of miscellaneous Orchids, consisting of *Lycastes*, *Cypripediums*, *Dendrobiums*, *Odontoglossums*, and *Laelias*. *Laelia anceps* was represented by several varieties. *Lycaste Skinneri* was good, and some excellent *Cypripediums* were exhibited. Silver-gilt Flora medal.

Some choice Orchids were included in the group from Messrs. Sander and Sons, St. Albans—*Cattleya Trianae* Purple King, *Cypripedium barbatobellatulum*, C. nitens Black Prince, C. Rajah, *Dendrobium validum* (finely flowered), *Enophria sandersiana*, several *Odontoglossums*, and *Dendrobiums*. Silver Flora medal.

The group of Orchids from J. J. Bradshaw, Esq., The Grange, Southgate (gardener, Mr. G. Whitelegge), was a very attractive one, consisting chiefly of *Odontoglossums* and *Lycastes*. There were some beautiful things among the latter, e.g., *Lycaste Skinneri Beauty*, *Valcan*, *Eros*, and *Balfie*. In this group were twenty-five blooms of *Lycaste Skinneri alba*; one plant of L. Balfie had eight flowers. *Cattleya Trianae* *præclara*, *Zoroaster*, and *Jonesiana* were beautiful flowers. Among the *Odontoglossums* O. wigianum, with rich yellow flowers, spotted with red-brown, was very handsome. Silver-gilt Flora medal.

Sir Trevor Lawrence, Bart., Burford, Dorking (Orchid grower, Mr. W. H. White), showed a small group of *Dendrobiums*, chiefly varieties of D. Wigianum, with yellow sepals and petals and dark throat. D. xanthocentrum, a lovely flower with rose-tipped sepals and petals and yellow blotched lip, was also shown. Silver Banksian medal. M. Ch. Vaylsteke, Loochriat, Ghent, exhibited some richly-marked *Odontoglossums*, including O. harrycrispum, O. loochristense, O. wilckeanum, and O. perculum. Silver Banksian medal.

Messrs. Heath and Son, Cheltenham, showed a small group of Orchids.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed a small group of Orchids that contained some good *Dendrobiums* and *Cattleyas*. D. noble virginale, D. superbiens, and D. aureum were among them. Silver Banksian medal.

## NEW ORCHIDS.

*Cymbidium holfordianum*.—A handsome flower of greenish yellow colouring throughout sepals and petals, the green showing most in the sepals. The primrose-coloured lip is marked with a few red-brown spots. From Messrs. Sander and Sons, St. Albans. First-class certificate.

*Cymbidium Lovi-grandiflorum*.—A large, striking flower, with green sepals and petals. The lip is pale primrose outside, white inside, except for the red-brown marking at the base, with a primrose-coloured margin. From Major Holford. First-class certificate.

*Odontoglossum x lathamianum*.—A strikingly beautiful flower. *Rolfeia ardensium* x *crispum* Mme. Valcke were the parents. The flower has broad sepals and petals and lip, all heavily marked with light crimson-red upon a white ground. The tips of the sepals, petals, and lip are white. Shown by M. A. A. Peeters, Brussels. First-class certificate.

*Laelia anceps Fascinator*.—A richly-coloured form, the sepals and petals are deep rose, the petals being tipped with purple; the lip is purple, the throat pale yellow. From Messrs. McBean, Cooksbridge. Award of merit.



*Lycaste Skinneri Fascination*.—A very pretty form, with white rose-edged sepals and petals; the lip is blotched with rose-crimson. From F. M. Ogilvie, Esq., Oxford (gardener, Mr. W. Balmforth). Award of merit.

*Lycaste costata*.—A large, drooping flower, pale green, almost greenish white throughout. The sepals are broad and thick, the upper one drooping over the smaller petals and lip. Shown by H. S. Goodson, Esq., West Hill, Putney (gardener, Mr. Day). Award of merit.

*Cypripedium Rowena*.—This is the result of a cross between *chamberlainianum* and *bellatulum*. The dorsal sepal and petals are heavily marked with crimson upon a dull white ground; the lip is dotted and tinged all over pale crimson. From W. M. Appleton, Esq., Weston-super-Mare. Award of merit.

*Cypripedium Boxalli nigricans*.—A variety of Boxalli with very dark crimson-brown, almost black, dorsal sepal, and crimson-brown petals and pouch. Shown by F. Wellesley, Esq., Westfield, Woking. Award of merit.

*Cymbidium eburneo-giganteum*.—This hybrid, whose parentage is indicated by the name, has sepals and petals of dull white, faintly marked with light crimson. The lip is beautiful, lightly marked with red upon a primrose-coloured ground. Shown by Messrs. Charlesworth and Co., Beaton. Award of merit.

*Dendrobium Othello colossum*.—A very large flower; the segments are tipped with light purple while the lip is rich purple with primrose and purple near the edge. Shown by Jeremiah Colman, Esq. Award of merit.

*Dendrobium x Brodiaea*.—A charming flower of pale purple colouring, with pale yellow throat. Shown by Jeremiah Colman, Esq. Award of merit.

*Cypripedium G. F. Moore punctatissimum*.—A handsome and finely-spotted variety. Exhibited by G. F. Moore, Esq., Bournemouth-on-the-Water. Award of merit.

An award of merit was also given to *Spathoglottis Colmani*, exhibited by Jeremiah Colman, Esq., Beigate; and to *Laelia Cattleya Myra Burford* variety, shown by Sir Trevor Lawrence, Bart., Burford, Dorset.

The first diploma for Cattleya Trianae was awarded to C. T. The Premier, shown by J. J. Bradshaw, Esq.; and the second diploma to C. T. Westonbirt variety, shown by Major Holford. Altogether eight forms of Cattleya Trianae were shown.

The first diplomas were awarded as follows: *Cypripedium aureum virginalis*, from J. Gurney Fowler, Esq., and G. F. Moore, Esq.; *Laelia anceps schroderiana*, from Major Holford, Baron Schröder, and Jeremiah Colman, Esq. and *Cypripedium Boxalli nigricans* from F. Wellesley, Esq.

Second diplomas were awarded to *Laelia anceps hallidayana roosefieldensis*, shown by de B. Crawshaw, Esq.; and to *Cypripedium Mostyn*, from G. F. Moore, Esq.

#### FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. A. H. Pearson (chairman), Messrs. Joseph Cheal, James Gibson, W. Bates, George Woodward, S. Mortimer, A. Dean, H. Parr, William Fyfe, Edwin Beckett, William Pope, R. Lye, Horace J. Wright, James Vert, G. Kelf, W. Barnes, Joseph Davis, J. Lyne, Charles Foster, P. C. M. Veitch, J. Willard, J. Jaques, J. McIndoe, Owen Thomas, and W. Foupert.

Messrs. Sutton and Sons' magnificent exhibit of Potatoes embraced practically all the more important varieties now before the public. Handsome, well-grown samples of no less than 151 distinct varieties were shown, and 90 of them were duplicated in seed-size tubers. An extremely interesting and valuable feature of the display consisted of a collection of specimen tubers of wild types and species, including the produce of a successful cross made with one of the wild forms of the Potato, *Solanum Maglia*, and the Potato of commerce. These tubers are unique, inasmuch as they are the result of what is believed to be the only successful cross ever effected with *Solanum Maglia*. Another interesting item was that of the Black Congo Potato crossed with a garden Potato, the resulting tubers being purple, and purple and white in the flesh. Tubers were shown that were really the grandchildren of *S. Maglia*. *S. Maglia* was crossed in the first instance with the Potato of commerce, and this was again used as one parent, with the result of the primary cross as the other. Gold medal.

Mrs. McCraigh, Thornhill, Stanton-in-Peak, Bakewell (gardener, Mr. G. Harvey), exhibited six dishes of very fine home-grown Oranges, and two of Lemons, equally good, and denoting most successful culture. Silver Banksian medal.

There were several exhibits of dishes of Apples and Pears, but no awards were made.

G. C. Raphael, Esq., Castle Hill, Englefield Green (gardener, Mr. H. Brown), showed half-a-dozen bunches of good Alicante Grapes. Silver Banksian medal.

Brydon's Peerless Broccoli was shown by Messrs. Kent and Brydon, Darlington. Snow's Winter White Broccoli was shown by Messrs. Hurst and Sons, J. Veitch and Sons, and Sutton and Sons.

A silver Knighthood medal was awarded to Mr. G. Gentle, gardener to Mrs. Denison, Little Gaddesdon, Berkshire, for a collection of excellent Potatoes of medium size. Some of the best sorts represented were Warrior, Factor, Duchess of Cornwall, Diamond, and King Edward VII.

#### ANNUAL GENERAL MEETING.

After the secretary had read the notice convening the meeting and the minutes of the last annual general meeting, the annual report, from which we make the following extracts, was read:

#### ANNUAL REPORT.

THE year 1905 has been one of development and steady progress in every direction of the society's manifold operations. The new hall and the new garden at Wisley

have both demanded much and careful consideration, and it is satisfactory to note that each of them has far exceeded the most sanguine expectations of their suitability for the society's purposes. The attention of the Fellows is directed to the satisfactory position of the society, not only as regards its present resources and the number of Fellows, but also in respect to the largely-increased privileges of the Fellows and the greatly-augmented general work of the society for the promotion of practical and scientific horticulture. The society has invested £18,480 in public securities; the hall, with its equipment and furniture, represents at least £41,000; and the works already executed at Wisley have cost over £5,600. All these are genuine assets to the credit of the society; and, despite the increased necessary expenditure at Vincent Square, compared with that at the Drill Hall, the credit balance on the year's working is £26,208.

The society was represented at the great International Horticultural Show at Paris in May, 1905, by Sir Albert Rollett, Bart., M.P., Major Holford, C.I.E., C.V.O., Mr. J. Gurney Fowler, Mr. Harry J. Veitch, F.L.S., and the secretary. Another deputation, consisting of the president, Mr. George Bunyard, V.M.H., Mr. James Hudson, V.M.H., Mr. A. H. Pearson, Mr. H. B. May, Mr. H. J. Veitch, F.L.S., and the secretary, visited the International Horticultural Exhibition at Edinburgh on September 18. In the spring of 1905 the council heard with the deepest regret that owing to the state of his health, Baron Schröder was unable to continue to occupy his seat on their board. As this decision was definite, had it been possible, the council would at once have invited the Fellows to put so honoured a name on the list of vice-presidents of the society, but as it was found that this could only be done at an annual meeting, they had no choice but to postpone it till the present occasion.

A very heavy loss to the council and to the society—as, indeed, to many other public institutions—was experienced towards the close of the year by the death of the Right Hon. the Earl of Ilchester, who took the liveliest interest in the welfare of the society, and regularly attended the meetings of council up to within a few weeks of his death. The very successful summer shows which were held in the park of Holland House, Kensington, in 1902, 1903, and 1904, are fresh in the memory of everyone, and only quite recently he had again given permission for the show to be repeated on July 10 and 11, 1906, a privilege which has since been most kindly confirmed by the Dowager Countess of Ilchester.

During the past year five of the oldest and most respected holders of the Victoria Medal of Honour in horticulture have passed away in the persons of Mr. William Paul of Waltham Cross; Mr. Richard Dean of Ealing; the Rev. H. Honeywood Dombain of the National Rose Society; Mr. F. W. Burbridge of Trinity College, Dublin; and Mr. Henry Eckford of Wem, to whom we owe so many of the most beautiful Sweet Peas. The council have to regret the loss through death of a number of the other Fellows. The Journal continues to maintain its position in the esteem of the Fellows, and its high rank among the publications of the scientific societies of Europe and America. Parts 1, 2, and 3 of Vol. XXXIX. were published in the spring, and Part 4 appeared at the end of last year. The report of the Conference of Fruit-growers, now in the press, will form a separate volume, and the first part of Vol. XXXI. will be issued in the summer. Mr. G. S. Saunders has been appointed editor.

The society's thirteenth annual examination in the principles and practice of horticulture was held on April 12, 1905, when 160 candidates entered, and the result will be found in the Journal (Vol. XXXIX., pages 688 to 692). The examination in cottage and allotment gardening, for elementary and technical school teachers only, which was held for the first time in 1904, was repeated on April 5, 1905, when 139 entries were received as against 124 in 1904. In order to further encourage the candidates in this examination, the council have decided that those who pass in the first class and desire to become Fellows of the society shall be exempted from the payment of the entry fee. In compliance with a request from certain county council authorities, the council of the society consented to hold a special examination on January 11, 1906, for gardeners employed in the London and other town public parks and gardens.

A scheme for the affiliation of local horticultural and cottage garden societies was put forward in 1890, and more than 200 local societies have availed themselves of it. The council note with much satisfaction that the number of Fellows seeking information from the society's officers continues to increase rapidly and some thousands of answers have been given to enquiries of every description.

The new hall has exceeded the most sanguine expectations of the council and Fellows, both in respect of its suitability for the society's purposes and of the demand for hiring it by other societies and individuals. The past year has been one of completion, improvement, and development. Various minor defects and faults have naturally been discovered, and these have been, or are being, corrected. A stepped platform-superstructure has been made for orchestral performances, which is almost identical with that formerly used at St. James's Hall. Two very welcome bequests have been received during the past year, one of £250 under the will of the late Mrs. Begley of St. Peter's Square, Hammermith; the other of £50 under the will of the late Mr. H. Cohen of St. Mark's Crescent, Regent's Park. No less than £700 has been received during the first year (1905) for the hire of the hall.

The whole of the books in the library have been cleaned and put in order at the sole charge of Baron Schröder, V.M.H., and the council have caused a brass tablet recording the fact to be erected in the library. The Veitch Memorial Trustees have also made a donation of £50 towards the funds of the library. Fellows having

books on horticulture and botany which they can spare from their own shelves, and those writing books or articles on horticultural subjects, are invited to contribute them to the society's library. The shows during the past year have numbered twenty-seven, occupying thirty-six days in all; and already thirty-three shows have been arranged for 1906, lasting over forty-two days. These include twenty-four fortnightly meetings, one home-grown fruit show, three colonial-grown fruit shows, one special show of table and other decorations, and the annual shows of Sweet Peas, Carnations, autumn Roses, and Potatoes, to which the council have arranged for Fellows' tickets to admit.

Kindred societies will continue to hold their shows at the hall, but they will not in future take place on days fixed for the Royal Horticultural Society's own exhibitions. The council have, however, made arrangements by which Royal Horticultural Society tickets will admit to these kindred societies' shows.

#### THE ADOPTION OF THE REPORT.

Sir Trevor Lawrence, in moving the adoption of the report, said that the year 1905 was memorable in the annals of the society; it was the first year of its occupation of the new hall and the Wisley garden. There was but one feeling among the Fellows—that the hall was most successful, and was likely to be only just large enough. Sir Trevor referred to the deputations sent to the Paris and Edinburgh shows, and of the cordiality with which they were received. They were very glad that Lord Balfour of Burleigh had agreed to occupy a seat on the council. The president spoke of the society's regret at the death of Lord Ilchester, and of the kindness of Lady Ilchester in confirming Lord Ilchester's promise to allow their summer show to be held at Holland House this year. To Baron Schröder, who was eighty-one years old that day, they owed a great debt of gratitude, and he was sure they would all wish him many happy returns. Sir Trevor referred to the appointment of Mr. Saunders as editor of the Journal in succession to the Rev. W. Wilks, who now found it impossible to carry out the offices of secretary and editor too. The hall is in great demand for hire, said Sir Trevor; it has supplied a pressing want in that part of London. The Benchers of the Inner Temple had been approached with regard to extending the tent-space at the Temple Show, but were unable to do this. He thought the number of awards made last year (1,254) were too many. Sir Trevor, in referring to the conference on plant breeding to be held the end of July and beginning of August, said he hoped as many would attend as possible, so as to give a hearty welcome to the foreign visitors. He estimated the £1 1s. subscription to be worth £5 14s. in money value, made up chiefly of tickets for the various shows and fortnightly meetings of this and kindred societies, and the Journal. Earl Tankerville had promised to take the place of the late Lord Ilchester on the council. He proposed that Baron Schröder be elected a vice-president. Sir Trevor concluded by expressing the society's thanks to the council, committees, the Rev. W. Wilks (secretary), Mr. S. T. Wright (superintendent), and the garden and clerical staff for their assistance.

Mr. J. Gurney Fowler, treasurer, in seconding the adoption of the report, said that the net profits on last year's working amounted to £26,208, an increase of £541 over that of 1904. The only blot on the accounts was the loss of £487 on the summer show at Chelsea last year. The summer show had never paid; in 1904, when it was held at Holland House, they had lost £59. If they lost again such a large sum as last year they would have to think seriously whether the summer show ought to be continued.

Mr. H. J. Elwes said the report was one that must give great satisfaction. He suggested the formation of a publication committee to assist the editor of the Journal, whom he thought would be one of the first to acknowledge its need. He suggested that it should be again considered whether the Journal ought to be given free to the Fellows. He would like to see the expenses of the Journal put as a separate item in the printing account. With reference to the distribution of plants from Wisley, he thought that common plants which could be cheaply bought should not be distributed, but rather other interesting plants not easily obtainable through the ordinary trade sources.

Surgeon-Major Ince supported Mr. Elwes' suggestion with reference to the Journal. He thought Fellows got their Journal too cheaply. He would also raise the subscription to at least two guineas.

Sir Trevor Lawrence said he thought it would be best to leave well alone, and not disturb the society's arrangements while they were working well.

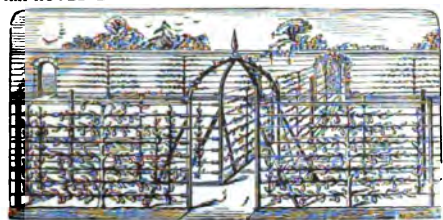
The report was adopted unanimously.

The Right Hon. Lord Balfour of Burleigh, Major Holford, C.I.E., C.V.O., Mr. Henry B. May, and the Right Hon. the Earl of Tankerville were elected members of council; the Right Hon. Joseph Chamberlain, M.P., the Right Hon. Lord Rothschild, the Right Hon. the Earl of Duces, Sir John T. D. Llewellyn, Bart., Baron Schröder, and Sir Frederick Wigan, Bart., were elected vice-presidents, and Sir Trevor Lawrence, Bart., K.C.V.O., Mr. J. Gurney Fowler, and the Rev. W. Wilks, M.A., were re-elected as president, treasurer, and secretary respectively.

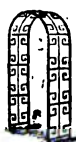
Sir Trevor Lawrence then presented the Victoria Medal of Honour in Horticulture to Mr. William Marshall, for twenty-one years chairman of the floral committee; Mr. R. Irwin Lynch, curator of the Cambridge Botanic Gardens; Mr. Thomas Smith, Newry; and Mr. Harry J. Veitch.

Sir John Llewellyn proposed a vote of thanks to the president, Sir Trevor Lawrence. Sir Trevor had been president for the past twenty-one years, and for ten years previously was an active worker in Lord Aberdare's council, when the society was in low water.

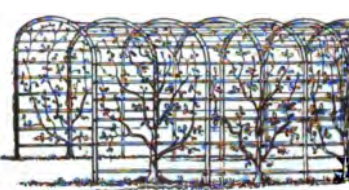
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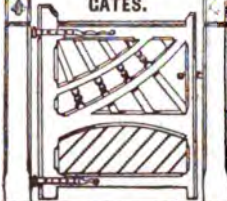
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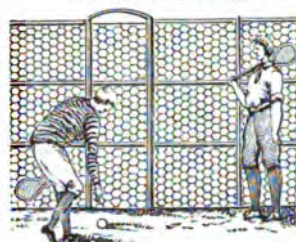
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# ROSES.

**J. B. CLARK.**

Hybrid Tea. The most sensational Rose ever sent out, immense in size and magnificent in colour and form. A unique advance in Hardy Garden Roses, of splendid vigour; will make a bush like a lilac, and flowers at the point of every shoot. Strong ground plants, **7/6** each; **84/-** doz.

Awarded both the Gold and Silver Medals of the National Rose Society.

**DOROTHY.**

Hybrid Tea. A beautiful variety for massing in beds, delicate shell pink in colour, vigorous and free, one of the first Roses to bloom and the last to go off; flowers beautifully pointed with large smooth petals. Strong ground plants, **5/-** each; **55/-** doz.

**HUGH DICKSON.**

Hybrid Perpetual. Intense deep crimson scarlet of large size and exquisite form, always brilliant in colour and thoroughly reliable. The most delightful perfume of any Rose we grow. Strong ground plants, **3/6** each; **36/-** doz.

Awarded both the Gold and Silver Medals of the National Rose Society.

**LADY QUARTUS EWART.**

Hybrid Tea. Pure paper white, exceedingly free flowering, free bushy habit. A splendid bedding variety, invaluable for cut flower purposes. Strong ground plants, **3/6** each; **36/-** doz.

**NOVELTIES FOR 1906, READY FOR DISTRIBUTION FIRST WEEK IN MAY.**

**Mrs. A. M. KIRKER.**

Hybrid Perpetual. Very large, full and free, clear cerise pink of even shade throughout, vigorous in growth, with pale green foliage and smooth wood. One of the finest Autumnal Roses for any purpose.

Awarded the Gold Medal at the International Show, held in Edinburgh in September, 1905.

Strong plants in May, **10/6** each.

**LADY OVERTOWN.**

Hybrid Perpetual. Large, full, high centred flower, vigorous stout growth, handsome foliage, and smooth wood. Outside of petals salmon pink, inside of petals pale flesh pink as in La France; will prove a valuable Exhibition Rose. Strong plants in May, **10/6** each.

**HUGH DICKSON,** GROWER TO H.M. THE KING, **ROYAL NURSERIES, BELFAST.**



**REDHILL & REIGATE GARDENERS' ASSOCIATION.**  
At the usual fortnightly meeting, Mr. W. P. Bound in the chair, Mr. J. Taylor of The Gardens, Bletchingley House, was, to the regret of the society, unable to fulfil his engagement. Mr. W. Wells of The Nurseries, Merstham, an old friend and member of the society, filled the breach, and gave a very able and practical lecture on "The Uses and Value of the Decorative Chrysanthemum." Mr. Wells dealt at some length on the methods of cultivation, also giving a list of the most recent varieties. By adopting the system, advocated by the lecturer, and by taking advantage of the early mid-season and late sorts, a good display of Chrysanthemums could be obtained for several months. A capital discussion followed, many members taking part. Considerably over a hundred were present on this occasion. On the motion of the chairman a hearty vote of thanks was accorded Mr. Wells for his very able lecture.

**READING & DISTRICT GARDENERS ASSOCIATION.**  
The annual meeting in connection with this flourishing society was held recently, the president, Mr. Leonard Sutton, presiding over a large attendance of members. The annual report and balance-sheet for the year 1905, which were presented, showed that the association was in a prosperous condition. The officers and committee for the present year were elected, Mr. Leonard Sutton again occupying the post of president, whilst Mr. C. Foster of the Reading University College Gardens was elected chairman, and Mr. E. Winsor, foreman at Bear Wood Gardens, vice-chairman. The hon. secretary is Mr. H. G. Cox of Ovington, Hamilton Road, Reading. Three splendid exhibits were staged, Mr. H. Wilson, the Gardens, Lower Redlands, exhibiting a choice collection of fruit; Mr. F. Lever, Hillside Gardens, some splendidly-flowered Roman Hyacinths; and Mr. F. W. Exler, East Thorpe Gardens, an excellent batch of Cyclamens.

#### PROGRAMME OF MEETINGS.

These are held at The Club Room, Old Abbey Restaurant, King's Road, Reading. Unless otherwise stated meetings commence at 7.30 p.m. February 26—"Winter-flowering Begonias," by Mr. F. Townsend, Wainfield Hall Gardens. March 12—"The Story of Germ Life," by Mr. H. Coleby, hon. sec., Wargrave Gardeners' Mutual. March 26—"Propagation by Layering," by Mr. A. F. Bailey, Leopold House Gardens, Reading. April 9—Special night at Abbey Hall, commencing at 7 o'clock with the following competitions: Bowl of flowers arranged for effect; all work to be done in the room; fifteen minutes allowed for arrangement; open to all. First prize, Royal Horticultural Society's A.S. bronze medal; second prize, five shillings; and a third prize of three shillings, if there are six competitors. Five small vases arranged for effect and suitable for a breakfast-table; all work to be done in the room; twenty minutes allowed for arrangement; open to all excepting head gardeners and foremen. First prize, Royal Horticultural Society's A.S. bronze medal; second prize, five shillings; and a third prize of three shillings, if there are six competitors. Flowers, bowls, and vases will be provided for each class. Entries must be made to the secretary not later than April 2. The competitions will be followed by "Gleanings from our Representatives to the Royal Horticultural Society's Shows" (Messrs. W. J. Townsend and F. W. Exler). This meeting has been selected for the annual hospital night, when members are requested to bring bunches of flowers which will be sent to the Royal Berkshire Hospital for the use of the patients. April 23—"Alpine Plants in England and Switzerland; the Construction of Rockeries, &c.," illustrated by a series of lantern slides, by Mr. H. Hemsley, hon. secretary, Crawley Gardeners' Mutual.

#### ROYAL GARDENERS' ORPHAN FUND.

The annual meeting of this institution was held at Simpson's, Strand, on Friday last, the 9th inst. Mr. H. B. May presided over a fair attendance.

The secretary having read the notice convening the meeting, and the minutes of the last annual general meeting, the annual report, of which we give a synopsis, was taken as read.

#### ANNUAL REPORT.

The committee, in presenting their eighteenth annual report, congratulate the subscribers once more upon the continued steady progress which the fund is making, though the annual income is still far from sufficient to meet the many claims now made upon the charity. The revenue for the year (exclusive of legacies, &c.), shows an increase of £186 16s. over the receipts for 1904; while having regard to the special objects for which the fund was established, the expenditure in weekly allowances and grants in aid of the sum of £1,438 15s., an increase of £108 16s. over the previous year's total, the committee believe will be accepted as an assurance that they are administering the means at their disposal with a due regard to the beneficent policy of doing the greatest good to the greatest number. That the number of claims for assistance has considerably outgrown the committee's resources, may be seen by a reference to the list of candidates seeking election, and the relatively small number of ten only which the committee feel justified in recommending the subscribers to elect.

The number of orphans who have been elected to receive the benefits of the fund during the seventeen years of its existence is 204, and the total amount expended in allowances during the same period is £14,961 12s. 6d. At the commencement of the year eighty-eight children were receiving the full weekly allowance, and fifteen were added to the list at the annual meeting. On December 31 the number on the fund was ninety, and twenty-three of the candidates waiting for election were receiving grants in

aid. The question raised at the last annual meeting as to the advisability of permitting two members of one family to seek election at the same time, has been well considered by the committee, and they have come to the conclusion that, having accepted the nominations of the children whose names appear on the voting list, they had no option but to allow them to appeal for election, but that, until further notice, the nomination of only one child at a time from any family will be accepted unless in very exceptional cases, when the dire necessities of a family may properly justify the acceptance of two.

The committee record the fact with much gratification that, under the genial presidency of the Earl of Mansfield, the annual festival, held on May 11, proved from every point of view an unqualified success. The subscription list amounted to the handsome sum of £889 4s. 8d., which amount has only once been exceeded at any previous annual dinner. The committee most heartily thank Lord Mansfield for his great kindness on that occasion. The next annual festival has been arranged to take place at the Hotel Cecil on Thursday, May 10, when the esteemed treasurer of the Royal Horticultural Society, J. Gurney Fowler, Esq., has most kindly consented to preside.

The supporters of the fund will learn with as deep regret as the committee feel in making the announcement that, in consequence of ill-health, Mr. Sherwood has felt compelled to resign the office of treasurer, which he had held for nine years. The fund has had no more generous supporter than Mr. Sherwood. The committee congratulate the subscribers on the acceptance of the office, at their unanimous request, by Mr. Edward Sherwood, in succession to his father. With deep regret the committee record the loss which the fund has sustained by the death of valued supporters. The committee have, with sincere regret, been called upon to accept the resignation of their valued colleague Mr. George Cuthbert, in consequence of his severe accident. In recognition of the warm interest taken in the fund by Mr. Cuthbert and his family, his son, Mr. George H. Cuthbert, has been unanimously elected to the vacant seat. The committee again desire most cordially to record their appreciation of the valued services rendered by the auditors, Mr. M. Rowan and Mr. P. Rudolph Barr. Mr. Rowan is the retiring auditor, and is nominated for re-election.

Mr. H. B. May, in proposing the adoption of the report, said that although subscriptions had increased, they were far from gratified with the support accorded by the gardeners. It was chiefly from the trade growers and from the owners of gardens that their support was derived. He said that one county having four orphans on the fund and two more waiting to be elected only subscribed £28 last year, yet the gardeners there were to be numbered not by the hundred, but by the thousand. They would admit there was room for improvement. Mr. May referred to the question of electing two orphans from the same family, a matter which is dealt with in the report. He said the last annual festival dinner was one of the happiest they had ever held, and the amount then subscribed has only once been exceeded. They are greatly indebted to the Earl of Mansfield. They looked forward to another festival dinner no less successful in May next under the presidency of Mr. J. Gurney Fowler. Mr. May said how much they regretted the retirement of Mr. N. N. Sherwood from the post of treasurer, while they were very glad to welcome Mr. E. Sherwood as his successor.

Mr. W. Bates seconded the proposition. Mr. A. Dean in supporting the resolution suggested that collections in aid of the Orphan Fund should be made at the meetings of gardeners' associations throughout the country. He mentioned that at Kingston this was done, and last year they were able to forward to the secretary £4 subscribed in this way. If other gardeners' societies would do this a large sum might be collected annually.

The resolution to adopt the report was carried unanimously.

The Right Hon. the Earl of Mansfield was unanimously elected a vice-president, Mr. E. Sherwood was elected treasurer, and Mr. Rowan was re-elected as an auditor.

The following retiring members of the committee were re-elected: Messrs. H. B. May, W. Bates, G. Casleton, J. W. Moorman, W. Nutting, G. Reynolds, and J. H. Whitty. Mr. Charles Dixon, Holland House Gardens, was elected on the committee in place of Mr. H. J. Jones, who retired.

#### RESULT OF THE POLL.

1. Inglis, Josephine .. 538	8. Hayes, H. Ingersoll 237
2. Harvey, Edith Clara 439	9. Hardee, Thomas A. 213
3. Day, Albert Leslie .. 318	10. Bundy, Olive G. .. 205
4. Reid, Arthur .. 207	11. Lee, Edward .. 167
5. Stride, Doris Evelyn 257	12. Page, Albert E. .. 145
6. Seaman, Wm. Allan 254	13. Spake, A. R. .. 150
7. Tilbury, Ena Mary .. 241	

\* Put on the funds without election. His father was a subscriber to the Orphan Fund from its inception.

† This was the third application of these two candidates, as they too were put on the funds without election. Mr. May pointed out that these three deserving cases were at the top of the list of unsuccessful candidates.

Votes of thanks to the scrutineers of the ballot and to the chairman brought the meeting to a close.

**Plant collecting in Western China.**—Some idea of the difficulties with which plant collectors are confronted, and the hardships they have to undergo in exploring the regions of Western China and Eastern Tibet, may be gained from the following extracts taken from a letter written to Mr. A. K. Bulley, Neaton, Cheshire, by Mr. George Forrest: "At last I

have reached Talifu in safety. I have just passed through the worst experience of my life, and I sincerely hope I will never be called upon to suffer the like again. Unexpectedly on the 19th of last month, the Llamas descended on Tsakou. We were warned, but escaped only by six hours. They looted and burned the mission, then followed us down the western bank of the Mekong, overtaking us in one of the side valleys of that river, about ten miles south of Tsakou. There were three of us, besides a large number of Christian natives. Père Mombert, luckily for him, happened at the time to be over at the Loo-tsi-kiang or Salwen Valley branch of the mission, and thus escaped. Père Bourdonnec was cornered after a short chase, shot down, his heart torn out whilst he was still alive; he was then beheaded. Père Dubernard escaped, but was captured on the second day, and similarly treated. About twenty natives were killed, and a great number more captured and led into slavery. I also escaped, and after the Llamas had finished off the two Pères they turned their attention to me. For eight days and nights I was hunted like a mad dog by bands of Llamas and their adherents, on the ridges of the Mekong-Salwen divide, but was lucky and skilful enough to beat them on their own ground and at their own game. Several times I was surrounded, but always managed to break away. During that period all the food I had consisted of about twenty ears of wheat, which I secured during the second day. The first night I had to throw away my boots, as the enemy were following my track by them, and from that time forward until I reached the Mekong opposite Yeh-Chih—a period of eighteen days—I went bare-footed. At the end of eight days I had become so exhausted by want of food that I determined to risk everything, and went down to a small Lisoo village, consisting of four huts, to beg for food. Fortunately, I fell among friends. I have a tale to tell you of the plants I saw during my journey South through the heart of the range. I think I would almost suffer the same again to procure even dried specimens of them—*Meconopsis integrifolia* in abundance. Another of the same genus, with radical prostrate leaves, covered with brown spinous hairs, flowers bright sky or turquoise blue, filaments a shade deeper, anthers bright yellow. These flowers are 2½ inches to 3 inches in diameter, so shortly stalked and close together as to form a complete spike of blue of 1½ feet in length, none of the upper part of the stem being visible. The plant is 2½ feet to 3 feet in height. I saw another *Meconopsis* with deep maroon flowers in a loose spike, drooping or semi-pendulous; another, probably a variety of same with pale lavender flowers, &c. I counted nearly a dozen species of *Primula*, some covering literally miles of ground. Very few flowers are in bloom here yet (May 27), but there is a magnificent *Magnolia* growing on the hills amongst the snows. It is a very lofty tree, 60 feet to 80 feet, flowers fully 6 inches in diameter, and so numerous as to show as one mass of pink at a distance of fully two miles. One of my boys has just brought in specimens of it, and I take it to be *Magnolia Campbellii*, described in Hooker's Flora of British India. One curious dish they have here (South-East Tibet), and one of which I was very dubious at first, is Ferns stewed in water with the addition of a little fat. The species used is the common Bracken, *Pteris aquilina*, which grows abundantly on all the mountains here, above a certain elevation. The part used is the young stem and frond just as they are expanding. These are boiled for some time in water to expel the bitter principle of the plant, and then cooked as I have described. Another dish, but one which as yet I have not partaken of, but which I am informed is equally good, is composed of the male inflorescence of *Pinus sylvestris*, prepared in a similar manner."

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# THE GARDEN.

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## MIGNONETTE.

**A**LTHOUGH not a showy flower, Mignonette has a peculiar charm of its own. It forms a pleasing relief to the more showy flowers, and the lovely fragrance of the blossoms renders it a favourite with all. As a commercial plant for pot culture it receives especial attention, and is grown to great perfection by many of the market growers, who make the culture of Mignonette an important, and often a very profitable, part of their business.

For pot culture it is very important to secure a good strain of seed. There are several good and somewhat distinct varieties. Mignonette is usually sown in the pots in which it is intended to flower; therefore the soil is the first consideration. Any ordinary compost may be used, provided it is fairly rich, free from worms, and sufficiently porous for water to pass through freely. In preparing the compost, it is a good plan to mix a little soot with the manure before adding it to the other soil, and a good sprinkling of old lime rubbish is a valuable addition to the compost. The pots should be filled firmly and not too full, as the seed should have a good covering and sufficient room left for watering. The first spring sowing may be made any time after the middle of February, and successional sowings throughout the season, the latest being in September. This will come into flower early in the year before the first spring-sown batch.

The best position in which to grow Mignonette is in pits or frames which have a southern aspect. The pots should be plunged in some light material, and placed as close to the glass as possible. As soon as large enough to handle the plants may be thinned out, leaving about six in a pot; or it is as well to leave a few more and go over them a second time, as sometimes a few will damp off. Ventilation should be given freely from the time the seed begins to germinate, and later on, as the weather gets warmer, the lights may be removed altogether on favourable occasions; but the plants should not be exposed to heavy rains or rough weather. It is very essential that watering should be regularly and carefully attended to; in fact, this is the most important point in connexion with the successful culture of Mignonette. Either

extreme is equally damaging; indeed, an over-dose of water or allowing the pots once to become too dry will often prove fatal. If the plants have had a good watering after the seed is sown, the surface soil will only require a slight sprinkling from time to time until the plants are large enough for thinning out; afterwards sufficient water should be given to soak through the soil as the latter appears dry. This will not be more than once or twice a week, but as the plants advance they will need more, and by the time the pots are full of roots they will require frequent attention. Manure water may be used as soon as the plants have got a good start, using it weak at first and gradually increasing the strength. By flowering time they will take manure water as strong as most soft-wooded plants. During the hot weather a good sprinkling overhead once or twice a day will be beneficial, especially as the plants are coming into bloom, as at that period they will require a considerable quantity of water, and the slightest neglect will result in loss of foliage. Ventilation must also be regularly attended to. Mignonette will soon get drawn if kept warm, though only for a short time. No artificial heat must be given at any time, except just sufficient to keep out frost.

And if short, sturdy plants are desired, they should be grown fully exposed to the sun, as the slightest shading will induce them to run up tall and thin. During the summer-time a sharp look-out must be kept for caterpillars, which are sometimes very troublesome, and will soon make sad havoc if not kept in check. With the exception of the above, Mignonette is not much troubled with insect pests.

## COLOUR EFFECT IN THE FLOWER GARDEN.

THE time has come when gardeners and amateurs who are desirous of producing the most pleasing and interesting colour effects and combinations in their gardens during the coming summer, will be busy making their plans, and in deciding on the number and the variety of plants that will be required for this purpose, whether hardy and perennial, half-hardy, sub-tropical, or annual.

Those who remember what summer flower gardening was some thirty years ago, when beds had to be filled almost entirely with tender bedding plants annually propagated

in many gardens in thousands, should be thankful to Mr. William Robinson and THE GARDEN for lessening enormously the gardener's labour, and converting him and the owners of gardens at the same time to the more sane system of using hardy plants to a greater extent for this purpose.

There are still many gardens where masses of colour are appreciated to a moderate extent, and I must say that, associated with beautiful green turf and stately trees and conifers, I have a weakness for these flashes of colour, whether on the lawn, the terrace, or in some sheltered nook, and these cannot be produced so effectively by hardy plants as by half-hardy ones. I shall never forget seeing two beds some years ago in the beautiful gardens of Miss Alice de Rothschild at Eythrope planted entirely with *Begonia Lafayette*. It had then only been recently introduced from France, and I am under the impression that the colour was then more intensely brilliant than it is now. The moment it was seen the question rose to one's lips, What's that? The beds were a glorious sheet of vivid crimson. I have had the pleasure occasionally of visiting the gardens at Gunnersbury House and Park for the past thirty years, and during that time have never failed to observe and admire a bed planted on the lawn with the old *Coleus Verschaffeltii*. The bed, I believe, has occupied the same site and been planted with the same *Coleus* for that number of years. I have used this plant largely myself. It has few equals, in my opinion, in producing a rich dark velvety crimson colouring. The secret of success with the plant when grown for this purpose is in having well-rooted strong plants at the time of planting out, planting thickly, and late, in well-prepared light soil.

The stronger-growing varieties of the *Alternanthera*, such as *A. magnifica* and others, produce telling effects in varying shades of gold to bronze. The *Heuchera* has grown greatly in popularity during the past few years, and deservedly so, the dark colour of its foliage contrasting pleasingly with its bright rosy-red flowers, which are produced freely and last a long time. It also has the merit of being hardy.

When a mass of purple is desired, I know of nothing to excel the old *Verbena venosa*. It is also excellent as a carpet to cover the surface of beds where tall plants are used. The Tree *Calceolaria* (*C. Burbidgei*), with its profusion of soft yellow blooms, makes a lovely combination with this *Verbena*. In yellows the ordinary *Calceolaria* is still indispensable where it succeeds, but of late years the golden *Celosias* have been so improved in quality and colouring by careful selection that they are unsurpassed for colour-effects in shades of gold.



The Pansy, again, in yellow, white, and many shades of blue, is among the most serviceable and effective for this purpose. It does not like a hot soil or hot weather, but in the South, if planted in rich and deeply-cultivated land and if the seed-pods are constantly picked off, it will bloom freely throughout the summer. One of the most pleasing combinations of colour that I can call to mind was given by beds planted with the silver variegated Geranium Bright Star, with Viola cornuta planted between. This variegated Geranium blooms almost as freely as the green-foliaged sorts, the flowers being a soft rose. These when associated with the light blue of the Viola produce a very pretty effect. For a mass of pure white, either as a carpet for other plants or by itself, *Centaurea candidissima* is one of the best subjects. I think the whiteness of the plant is purer when propagated from cuttings than from seed.

*Koniga maritima* for masses or for margins of beds is both pretty and sweet. For bolder masses of colour in the garden we have ample material in such plants as the single and Cactus Dahlia, the Canna and the Gladiolus; and what a glorious plant for this purpose is the Fuchsia, when well-grown specimen plants of considerable age and size are used.

When visiting Hatfield Gardens a year or two ago, I had the rare pleasure of seeing a Fuchsia garden, planted entirely with splendid specimens of these plants in rich variety and in magnificent bloom. I shall not soon forget the pleasure it gave me to see this unique sight.

I might go on enumerating many more suitable plants for colour massing, but enough has been said to direct attention to the subject. Many other plants will suggest themselves to those who have this work to carry out. I will only add that for success to be attained, the plants used must be strong at the time of planting out, and the soil well manured and cultivated.

OWEN THOMAS.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

March 3.—Meeting of the French Horticultural Society of London.

March 6.—Royal Horticultural Society's Meeting; National Amateur Gardeners' Association's Meeting.

March 7.—Sheffield Horticultural Society's Meeting; Lewes Horticultural Society's Meeting.

March 12.—Annual Meeting of the United Horticultural Provident Society.

**High price for Willow timber.**—At the sale held last week on Sir Walter Gilbey's estate, Willow timber suitable for bat-making fetched as much as 11s. 6d. per foot. Through the medium of papers connected with the timber trade I have for long advocated the extended culture of Willow timber suitable for the manufacture of cricket bats, but, although a few plantations were formed some ten years ago, yet not one tithe of the area that our ever-increasing demands warrant has been brought under cultivation. When we consider that the Willow succeeds best on dampish land that would be considered unsuitable for agricultural purposes generally, that it is of the freest growth and readily propagated, and that the price of the timber is far ahead of that of any other tree grown in this country, the wonder is that it is not more generally cultivated. For planting in marshy ground by our lakes and streams it is

peculiarly suitable, whether looked at from an æsthetic or economic sense.—A. D. WEBSTER, *Regent's Park.*

**Mosehosma riparium.**—Having received so many enquiries about this plant, I find it impossible to answer my correspondents individually. I have received several specimens, all are correctly named, but grown in too warm a house.—W. P. BOUND, *Gatton Park Gardens, Reigate.*

**Perpetual Spinach (Spinach Beet).**—This is an invaluable vegetable. To grow it successfully a soil well cultivated is especially important. It must not be made rich with green manure or the growth will be rank. Seed should be sown during May, and the seedlings thinned to 6 inches apart. Little further attention is necessary, except an occasional hoeing to keep down weeds. The first picking can be had by the end of July, and thence onwards to the end of May the following year there will be no lack of beautiful young leaves; the outside leaves must be left intact, taking the inner ones, which will be nice and tender. Where a supply of Spinach has to be kept up the whole year, and Victoria or Prickly fails, Perpetual Spinach will be most valuable.—W. A. S.

**The first Daffodil.**—Mr. Peter Barr sends from Kirm, N.B., the first flowers we have seen from the open ground of *Narcissus pallidus præcox*, a clear soft lemon yellow, but the later flowers are white. We are glad to hear this enthusiastic gardener is making great progress in collecting the British Primulas.

**The Feather Hyacinth.**—Everyone who grows bulbs should grow *Muscari comosum monstrosum*. The bulbs are cheap and perfectly hardy, and the plumes are delightful. They should be planted from 4 inches to 5 inches apart, with some coarse sand beneath. If placed in groups with a groundwork of *Cerastium tomentosum*, the effect is beautiful. Choose a place sheltered from strong winds, or the plumes will be broken, being rather top heavy. Any good garden soil will suit them, but they grow best in a good loam with a top-dressing after the foliage has ripened.—W. A. S., *Croucombe, Taunton.*

**A good dwarf Campanula.**—*Campanula cespitosa* is a pretty blue plant, and with its variety *C. c. alba* charming for edging. It grows only from 4 inches to 5 inches high, and is literally covered through the summer and early autumn with lovely delicate bell-flowers. Planted on a North border they do splendidly; they also do well on a wall, especially on the shaded or partly-shaded side. When once established in such a position they thrive and spread with great rapidity, soon filling every crevice. I have grown them facing South, but they have not shown the same vigour as in other positions. They are hardy and perennial. Clumps taken up from the border during late autumn and potted make pretty plants for the cool house.—W. A. S.

**Choisya ternata.**—This pretty evergreen shrub, which is a native of Mexico, is quite hardy, but it prefers a position where it is protected from the cold winds. It likes a rather light loam, with a gravelly subsoil. The flower resembles an Orange blossom, has a yellow centre, and is very sweet scented. The shrub commences to bloom about March, and is more or less in flower until October, for new blooms are produced on the season's growth, as well as on that of the previous year. *Choisya*s may also be grown successfully in pots for use in the conservatory, where they are a source of much interest.—J. G.

**Bulb-growing in fibre.**—In a recent issue of THE GARDEN "W." said that his bulbs in moss fibre were then developing their flower-buds, and in a few weeks he hoped to have them in full flower. Some of mine were potted in moss fibre at the end of September, others on October 4 and 5, and several are now in full bloom. My

first was a single bulb of *Narcissus incomparabilis* Queen Bees, potted in a small vase; it opened on January 19, and lasted a week. Then came White Trumpet Mrs. Thompson, then a larger potful of Queen Bees, which has lasted nearly a fortnight, Barri Orpheus, Barri Golden Mary, and now my first pot of Sir Watkin is in flower. All these were kept (with the exception of the single Queen Bees) in an unheated conservatory facing east until the flower-buds were developed, when they were brought to my room, which faces west and gets the sun from 12 o'clock. I have several more potfuls the buds of which have burst their sheaths, and I hope to see them open in the course of a few days. All these are in china pots without drainage, and I have a number of Tulips which are slowly developing.—H. P., *Eding.*

**Red Mistletoe.**—Our native white-berried Mistletoe is now very much in evidence, but the red-fruited kind is but rarely seen. It does not appear to be quite hardy, although a few degrees of frost do no damage. During a recent visit to Mr. Athelstan Riley's garden near Padstow I saw a well-berried example established on a small plant of the common Thorn growing in a pot, which had just lately been placed in a cool house for protection during the winter.—A. C. BARTLETT.

**A beautiful early Saxifraga (S. burseriana major).**—There is probably no early-flowering Saxifraga that can compare with this in point of beauty or freedom of flowering quite early in the year. Very early in January interest centred upon this plant, when day by day the scarlet buds and calyces became more pronounced, and subsequently the leafy peduncles were enriched by the same colour-tone. For several days past the pure white blossoms, on stems nearly 3 inches long, have been attractive, and plants with several dozens of such flowers are very beautiful. There is no other member of its group so markedly distinct and easy to grow as this. A mixture of light sandy loam and old mortar suits the plant admirably. I never frame or protect my plants even by plunging. When the flowering period arrives, however, they are given protection, so that their beauty may be enduring.—E. JENKINS, *Hampton Hill.*

**Tulip Scarlet Emperor.**—Mr. W. T. Ware, Bath, sends fine blooms of this Tulip. It belongs to the May-flowering or old English cottage garden varieties, and was introduced by Mr. Ware, who received a first-class certificate for it. He has been making trials with various species of English-grown Tulips, and finds them force well. The blooms of the above variety were certainly very fine, with long stems and good foliage; and I understand other sorts have done equally well. The Darwin varieties are also already in flower with Mr. Ware. It may be some time before these will take the place of Dutch-grown sorts; yet with the latter in such great abundance we want something different for choicer work. If the large, showy May-flowering and the Darwin Tulips with long stems can be brought into flower early they will be more valuable than later, when they do not last so well.—H.

**A golden-leaved Conifer (Retinospora pisifera aurea).**—For brightening small shrubberies this evergreen tree is one of the best. Specimens may be purchased which are only 1 foot high, but which are nicely balanced in growth, with the tips of each branch quite golden. For a number of years these small trees may be left to grow a few feet from the front of the border. Green-foliaged trees behind them make a charming background. The sunnier the position the better will the rich golden colour come out in the foliage. During the transplanting see that as much soil as possible adheres to the roots, and thoroughly water the soil around them for a month after planting.—AVON.

**Gardeners' Royal Benevolent Institution.**—The committee of the Liverpool Auxiliary are holding their fourth annual smoking concert on the 24th inst. in aid of the funds. They have secured Dr. G. W. McFall to preside. Mr. R. G. Waterman, Woolton, is the secretary.

**Organising gardeners' societies.** It must not be forgotten that it was through the committee of the great gardeners' dinner of the autumn of 1903 that the question of gardeners' status, duties, remuneration, and organisation was raised, the first suggestions coming from Mr. W. H. Divers. During the deliberations of the committee on those suggestions I proposed that the best course would be to take advantage of the existence of numerous gardeners' societies, to create from them a national federation, and thus utilise them so far as practicable for the purposes raised by Mr. Divers and others, rather than the forming of an entirely new body. That suggestion was not adopted, unfortunately, but it is interesting to note that to some extent it has now been again raised by Mr. Boshier of Croydon in *THE GARDEN*. The special society was formed, and has been freely boomed, but with comparatively little success. No doubt Mr. Boshier and many others see that, and have come to realise that the only way to organise the gardeners of the kingdom effectually is to utilise existing gardeners' societies.—A. DEAN.

**The Algerian Iris.**—*Iris stylosa* is flowering with great profusion in Blenheim Gardens, Oxon. The plants commenced to flower early in October last, and from then until now we have gathered hundreds of the delightfully fragrant flowers, the greatest quantity gathered at one time, in December, being 13½ dozen. This success, in a great measure, is due to their being in a sheltered position, and the extremely mild autumn and winter we have experienced. The colour of the flowers, a pale blue, is not suitable for table decoration at night, but we have filled bowls with them for breakfast and lunch tables, when they have been much admired. Though not of long duration in a hot room, they will keep for several days in one that is moderately cool. This Iris was planted about three years ago, in a long, narrow border of ordinary garden soil, adjoining a lean-to Rose house, facing south, and now completely fills the border. Last spring we lifted and divided some of the strongest clumps to plant another similar border; there they have become well established. It may not be amiss to mention that in gathering the flowers of this Iris, it is best to cut them in the bud state, just previous to opening, for then there is less risk of damaging the flowers, which are very tender.—W. D. C., *Woodstock*.

**The Yellow Rambler Rose.**—When Rose Aglaia, "The Yellow Rambler," was introduced it was widely talked about, and many were planted in gardens throughout the country. It has, however, proved somewhat disappointing, more particularly to those who expected too much from it during the first few years. Aglaia does not flower freely until the plants have become well established and have made good growth. Then it blossoms abundantly, and makes a grand display when at its best. The German gardening paper, *Möller's Deutsche Gärtner-Zeitung*, gives an illustration of a large standard plant of this variety which is very beautiful. The long slender growths have formed a large and graceful head (so entirely different from the mop-headed standards of Hybrid Perpetuals that we so often see), and they are covered with blossom from end to end. Judging from the figure of a person standing by this specimen Rose, the stem of the standard is about 5½ feet high; and the head, which extends some 4 feet higher, is of irregular, almost weeping, form on account of the long, drooping flower-laden shoots. This standard Rose of Aglaia is now seven years old. It flowered sparsely for

the first few years, but has since more than compensated for its early scarcity of blossom. The name Yellow Rambler is somewhat misleading, for although the buds are quite yellow, the flowers when first open are quite pale yellow and soon fade to white. In spite of this, however, Aglaia is a Rose worth growing, and those who are not satisfied with it should grow it as a free standard.

#### THE SNOWDROP.

HAST thou not slumbered long enough?  
Fair flower so pure and white.  
Oh! leave the ground and haste to shake  
Thy blossoms in the light.  
Is it so pleasant underground  
That thou dost thus delay?  
Perchance I think thou canst not know  
That Spring is on her way.  
We've waited for thy coming long,  
As we wait for one we love,  
And sought thee all the garden round  
And through the distant grove;  
Till disappointed we returned,  
And sighing in our sorrow,  
Clung fondly to the after-thought  
That thou may'st come to-morrow.  
Come then, fair messenger of Spring,  
And raise thy pearly head,  
Full well we know thy sister flowers  
Will o'er thy footsteps tread.  
Break Winter's chains, and ever bring  
New thoughts of hope and life,  
Leading our hearts away from ill  
With which this world is rife.  
So shall thine advent ever find  
A welcome warm and true,  
And through long Summer days we'll keep  
A memory for you.  
A memory for you, fair maid,  
Firstling of all the train  
Which lives and lasts and holds our hearts  
Till Snowdrops come again.

H. C. PHILBRICK.

**Winter-flowering Carnation Society.**—On the 13th inst. a meeting of Carnation growers and others was held at the Royal Horticultural Society's hall, Westminster, to discuss the advisability of forming a winter-flowering Carnation society. A provisional committee was formed to make enquiries among growers, and to report to a general meeting to be held in May. The following are members of committee: Messrs. J. S. Brunton (chairman); W. E. Boyes, Leicester; H. J. Outbush, London; Cadman (T. S. Ware, Limited); A. F. Dutton, Iver; C. E. Eggelmann, Saffron Walden; Low (Hugh Low and Co.); S. Mortimer, Farnham; and Hayward Mathias, Thames Ditton (honorary secretary).

**A flowering shrub for small gardens.**—Amongst flowering shrubs suitable for present planting *Olearia Haastii* is one of the best. For small gardens, where it is not possible to plant large shrubs on account of restricted border space, *Olearias* are most suitable. The leaves are small, somewhat resembling those of the Box, but are much paler in colour. The branches grow closely together, and are thickly covered with leaves. The flowers are white in colour, borne in clusters or bunches all over the shrub. The individual blooms are smaller than those of the single-flowered Hawthorn, which they resemble, and the scent also is not unlike that of the Hawthorn. From the middle of July to the middle of September the flowers are a mass of white on the bushes. Roots are plentiful and mainly fibrous, so that the plant is one which may be moved with ease and every chance of success. The best position is one about 2 feet from the edge of a shrubby border. A sandy loam suits this plant better than a clayey one, though it may be successfully grown in heavy

soil. But at the time of planting I advise growers who have not had any experience with the shrub to dig out holes somewhat larger than required to contain the roots, and to put in a mixture of leaf-soil and road scrapings, finally planting in the same kind of material. Cut off all the faded flowers at the time of planting.—AVON.

**Two new Begonias.**—*Begonia semperflorens* is a most useful plant to the amateur and professional gardener, and two new varieties are worth bringing to notice. One is called *Berna*, which is similar in growth to *Begonia gracilis*. It has handsome shining red-brown leaves, against which the carmine-red flowers, most freely produced, show to great advantage. Another beautiful new *Begonia* is *B. gracilis luminosa*. Its foliage is of a darker colour than that of *Begonia Berna*, and the blossoms are larger and of dark scarlet colouring. There is no doubt that both these *Begonias* will become popular when better known. They are undoubtedly the best dark-leaved *semperflorens* varieties yet introduced, and for massing in beds in the flower garden they will prove invaluable. They are said to come true from seed.—T.

#### ORCHIDS.

##### CULTIVATING VARIOUS ORCHIDS.

[In reply to "F. C. N. M."]

WE will first of all class the Orchids you name into groups which will grow together. No. 1 group: *Cattleya Mossiae*, *C. Trianae*, *C. Mendelii*, *Lælia anceps*, and *L. jongheana*; these should all be grown in the *Cattleya* house temperature. No. 2 group: *Dendrobium formosum*, *D. thyrsiflorum*, *D. chrysotoxum*, *D. nobile Cooksoni*, *D. nobile nobilium*, *D. nobile elegans*, the hybrids *D. Ainsworthii*, *D. splendidi-ssimum*, and the fine variety *D. Phalaenopsis schroderianum* require when growing the temperature of the stove Orchid house, and if you follow the calendar notes you will be guided when they should be removed to cooler and dryer conditions. No. 3 group: These should be either placed at the coolest end of the *Cattleya* house, or, better still, give them room in the house we call the intermediate. *Lælia dayana*, *Odontoglossum grande*, *O. citrosimum* (yes, this has broad and somewhat stiff leaves, and should be grown suspended on account of its pendulous spikes), *Vanda cærulea*, *Maedevalia tovarensis*, and *Oncidium flexuosum*. No. 4 group: *Maedevalia harricana*, *Odontoglossum Alexandræ* (syn. *O. crispum*), *O. lindleyanum*, *O. gloriosum*, *O. cirrhosum*, *O. sceptrum* (which is a variety of *O. luteo-purpureum*), and *Oncidium macranthum* all require the humid, cool temperature of the house known as the cool or *Odontoglossum* house.

The compost for those in Groups 1 and 3, with the exception of *Vanda cærulea* and *Maedevalia tovarensis*, and Group 4, should consist of two parts good fibrous peat, two parts chopped sphagnum moss, and one part good leaf soil not too rotten. Mix all well together and add a fair sprinkling of coarse sand and small crocks. *Maedevalia tovarensis* requires a compost of one part fibrous loam, one part peat, and one part sphagnum moss, mixed with sand and crocks. *Vanda cærulea* should have equal parts of peat and sphagnum moss mixed together, and plenty of drainage. A good compost for *Dendrobium* consists of equal parts of good fibrous peat and chopped sphagnum moss, with a liberal sprinkling of coarse sand and small crocks.

We cannot advise you better than to follow our Orchid calendar, which we feel will be of great help to you as regards resting, season of potting, &c. We can congratulate you upon your selection.

## THE ROSE GARDEN.

### ROSE-GROWING IN POTS.

**I**N these notes I wish to give the beginner a few practical hints upon the management of Roses in pots. Good Roses may be grown in ordinary green-houses of mixed plants, providing there be (a) plenty of light, (b) no cold draughts, (c) steady heat, (d) and no overcrowding. Assuming the novice wishes to procure a few pot Roses, I would recommend him to go to a good nursery and pick out the plants. This can be done at almost any time, but early autumn would be best.

If economy must be studied, purchase plants in 5-inch or 6-inch pots; if not, those in 7-inch or 8-inch would be best. If purchased in 5-inch or 6-inch pots, the plants should be transferred at once to a size larger. Make up a mixture of loam, which can be obtained from a meadow, just beneath the grass. Three parts of this and one part of well-rotted manure make good Rose soil if well mixed together. Have the new pots ready washed, and place in each some crocks, one large piece over the hole, and a few other smaller pieces. Put a handful or so of soil on the crocks, then the plant, having first removed the old crocks. The ball of earth should be lightly prodded with a pointed stick to release the roots a little. Press the new soil firmly around the ball, and ram it tight with a stick. If plants in 7-inch or 8-inch pots are procured, no repotting will be necessary the first year. Never have the pots over-large, that is to say, when repotting is necessary let the pot be only one size larger each time. Do not repot Roses in the winter months, but rather give them a top-dressing if they seem at all weak. This top-dressing merely means removing about 1 inch of the surface soil and replacing it with some new soil such as I have named above.

Now is a good time to begin pot Rose-growing, and it is not too late to purchase plants. They will be in a dormant condition, and should be pruned at once. The growths on Tea and Hybrid Tea Roses should be cut back moderately, say, about 12 inches to 15 inches from top of pot. Prune Hybrid Perpetuals to five or six eyes. Eyes are really the small specks that may be seen at the base of each leaf-stalk, and they yield the new shoots, so that when pruning the topmost eye on each shoot should look outward. By bending the shoots slightly outward the starting into growth of the dormant eyes at the base is accelerated.

Climbing Roses are not pruned much; simply cut off the soft pithy ends of the growths and then tie them to the roof about 15 inches from the glass. Another plan is to twine the growths around four sticks in the pot, when the dormant eyes or buds will be induced by the check to the sap to start into growth, and many of these growths will produce a bloom. After pruning the bush plants stand the pots on an inverted flower-pot to have them near the glass. Keep them rather dry at first, merely syringing them overhead on fine mornings. When the new shoots begin to push out give the plants a good watering with tepid water. This first watering should be thorough. Until there is a quantity of foliage water will be slowly absorbed by the plants, and the syringe will convey sufficient for some

time. Try and keep the soil in an even, moist condition, neither too wet nor too dry. When the pot is tapped, if a bell-like sound is given off, water is needed.

### VENTILATION.

This must be carefully adjusted at all times. The atmosphere should be sweet and buoyant. If artificial heat be given, a shall chink of air for an hour in the morning, when sunny, will sweeten the atmosphere and be most healthy for the Roses. Avoid a cold, cutting draught. The best temperature for pot Roses is about 48° to 50° by night, and 58° to 60° by day. On sunny mornings the glass will run up to 70° or thereabouts, but this will not harm the plants. Do not put a lot of water on the floor, but just syringe a little over the pipes and walls and paths. This should be done in the morning, about 9 a.m., when fine, but on cold dull days none will be needed.

I am supposing that the Roses are to be grown with other plants; but if there are no other plants in the house the temperature may be considerably less. Roses may be grown without any artificial heat. When this is the case give plenty of air during the day, but on cold days keep the side lights closed up, and the top ventilators shut down early in the afternoon.

### DISEASES.

Green fly will appear when the foliage develops. As soon as it is seen, fumigate the house. The simplest method is by McDougall's XL All sheets. One sheet is sufficient for 1,000 cubic feet. Just hang one in the house and run a light along the edge. It may then be left to burn out.

Mildew is another great trouble to the Rose-grower. Nothing stops it better than Campbell's Vaporiser. Sulphur is simply boiled in this vaporiser, and the steam sent off into the house so that every particle of the plant is covered with fine sulphur like the bloom on a Grape. Mildew and sulphur fumes are sworn enemies. This vaporising is repeated about every fourteen days, and the apparatus is so simple that a lad can work it.

When the growth has advanced small sticks may be used to tie out the shoots. Every leaf needs the sunlight, and it should be the aim of the grower so to arrange his plants that this end may be accomplished. Stir the surface soil now and then with the point of a label. Water with liquid manure about once a week as soon as the small flower-buds are seen. This liquid is made by putting a bushel of cow-manure into a large tub and filling the tub with water. Stir well for a day or two, then place in the tub a peck bag with some soot in it. When the liquid is fairly clear put one gallon of it to three gallons of water, and as the buds swell it may be given half and half.

Maggots are often troublesome; a little tiny black maggot will soon penetrate the bud, and before one is aware of it the bud is destroyed. This can only be overcome by hand picking. When blooms show colour remove the plants to a cool place, and they will develop better.

### SECOND DISPLAY OF FLOWERS.

As the flowers fade rest the plants a little by withholding water, and cut back the flowering shoots a few inches from their ends. A second display of flowers is obtained in about ten weeks' time. The

plants for this will need liquid manure more frequently, as the pots now contain a lot of roots. The foliage must be well syringed beneath the surface to check red spider—a terrible pest—which appears as the days lengthen. Moisture is its deadly enemy. If it is allowed to increase the foliage becomes sickly and rusty-looking and soon drops off.

The culture is similar to that required for getting the first crop, only the lengthening days will raise the temperature, and it will be necessary to give more air. Do this without causing a cold draught, and be careful that no sudden rush of outside air is allowed. It is best to begin giving air gradually, increasing it as the sun gains power. Avoid a temperature too damp at night. A disease called black spot is encouraged by this.

As the days lengthen and the buds show colour shading of the glass is advisable. A roller blind is best, but whitewash syringed on the glass will check the scorching effect of the sun, and will not impede the light. Repot the plants after this second display, and keep them under glass for about a month, when they may be placed outdoors plunged in ashes for the summer.

### VARIETIES.

Twenty-four good varieties to grow are as follows:—*Climbers*: Climbing Belle Siebrecht, Bouquet d'Or, William Allen Richardson, Maréchal Niel, François Crousse, and Mme. Jules Gravereaux. *Bushes*: Caroline Testout, Frau Karl Druschki, Captain Hayward, La France, General Jacqueminot, Mrs. John Laing, Ulrich Brunner, Lady Battersea, Mme. Abel Chatenay, Lady Roberts, Anna Olivier, Mme. Hoste, Sunset, Niphetos, Pharisaer, Bridesmaid, Liberty, and Mme. Ravary. P.

### JOTTINGS ABOUT ROSES.

#### ON STOCKS.—THE MANETTI.

THE correspondent to whom I referred at the beginning of these notes seeks for information on the difficult but all important question of stocks. My own idea is that amateur Rosarians generally would meet with far more success in the cultivation of Roses if only they would take a little more interest in this subject. There is too much of "follow my leader" nowadays, and amateurs who often have some spare time on their hands might do worse than experiment with various stocks. If nothing comes of the experiments why no harm is done, and it is not unlikely that a little knowledge may be gained. How many people to-day, for instance, trouble about stocks when they are ordering Hybrid Perpetuals? Yet success or failure alone often depends upon this point. Trade growers are, like most ordinary mortals, in business to make a profit, consequently they choose good loamy soil for their Rose nursery, such as the briar delights in, on which to grow their plants, and perhaps the lightest of it is reserved for the Manetti. To do otherwise would be to court failure. Now let us suppose, as frequently happens, that an amateur writes to the nurseryman for a collection of Hybrid Perpetuals, mentioning nothing whatever about the soil or the stock required. It is quite likely that the grower may send some of the plants on Manetti and some on briar, whether it be a seedling or cutting. This depends solely, of course, on how he is situated. When the beginner comes to plant his Roses, knowing nothing of the stocks upon which they are worked, he is almost certain to make mistakes, which will prove fatal from the first. Probably a friend comes along full of wise advice on the importance of not planting Roses too deeply, and as a result the Roses, be the stock what it may, are treated according to this advice.

If there is one thing which proves fatal to Roses on Manetti it is shallow planting—by this I mean planting them so that the union of stock and scion is on a level with the surface of the soil, which for the briar is, of course, perfectly correct treatment.

Although the use of the Manetti stock for Teas seems to have been entirely abolished, yet I am sorry to say that it is still being employed for Hybrid Perpetuals, Chinas, and some other Roses. One of my greatest failures has been a little hedge of the China Rose, Mme. Laurette Messimy, due solely to the fact that the plants were upon Manetti stock. In spite of the fact that they were deeply planted they have never made headway, and yet these plants were from a very well-known firm, who took the trouble to write and tell me that this variety was well suited to the stock.

The late Mr. Foster-Melliar summed up the Manetti stock in one pregnant sentence, viz., "The Manetti stock is not suitable for purchased plants." This remark needs mentioning over and over again; in fact, until the heresy (which

## THE FLOWER GARDEN.

### THE MIXED BORDER.

#### PRACTICAL HINTS.

**A** CAREFULLY-PLANNED herbaceous border will ensure a succession of flowers for quite nine or ten months in the year. First we have the Christmas Rose, or if bulbs are included, the Snowdrop; in fact, a rotation of bulbs will furnish a supply of flowers for practically as long a season as the herbaceous plants themselves. The Hellebores flower for quite three months of the year, and between these and the Michaelmas Daisies an uninterrupted succession of bloom may be obtained with judicious arrangement. To describe a collection of hardy plants would occupy too much space, and would be superfluous, as they are now so well described in catalogues, their height, colour, and time of flowering all being given. Anyone wishing to plant a border will experience no difficulty in making a suitable selection of plants. The soil should be deeply stirred up, quite two spits deep, and then made

done, as the foliage must be preserved until matured, otherwise next season's crop of flowers will be unsatisfactory.

Among hardy plants there are some that must not be cut over when the foliage is cleared away, or the result will be no flowers at all; the Montbretia is a good example. In spite of the untidy appearance during the autumn and winter months the leaves must remain until the spring, when they will leave the crowns of the plants quite easily, and, of course, the leaves form a natural protection during the winter.

The Montbretia benefits greatly by being broken up and replanted every two or three years. As a rule the finest blooms are gathered from those that were replanted two seasons ago; thus to keep up an annual supply a few should be replanted every year. The same method holds good with the Campanulas; some of them, *C. grandis*, for instance, would soon occupy a few square yards of the border if not reduced and replanted every autumn, and the flower spikes would deteriorate. Naturally the soil among their fibrous roots will become exhausted, even though it is enriched with manure. Close obser-

vation convinces me that removal of plants in the border will ensure better growth and bloom than treatment with manure. Another trouble amongst hardy plants if not occasionally replanted is mildew. This malady rapidly makes its appearance among Delphiniums. Here, some years ago, the plants were so unsightly that we had to remove them from the borders; now that replanting and deep cultivation have been practised, they are one of the features of the garden. J. JEFFREY.

*Kirkcudbright.*

### TUBEROSES OUT-DOORS.

NOTICING from time to time in THE GARDEN some beautiful photographic reproductions of greenhouse and tropical plants growing in the open air, I send you a photograph of Tuberoses grown in a bed in the open air here.

The beautiful air of Llandudno makes it possible for us to grow plants out of doors that in most parts of the country would have to be nursed under glass. The photograph was taken in August of last year, before the flowers were really at their best.

*Sunny Hill, Llandudno.*

J. BROOME.

### NOTES ON SPRING BEDDING.

We gardeners usually like to get spring plants set out towards the middle of October, so that the roots can lay hold of their new surroundings before much frost gives them a check. The sooner spring flowers are planted after November the better. Providing the beds were well manured before summer planting, none will be necessary, but let them be dug up deeply and worked down to a fine tilth before planting, and if still very dry, give a good watering, as it is nearly as bad to plant while in a parched state as it is when sodden. So allow a day or two to elapse before planting. As with summer arrangements, judgment is required in blending the colours to harmonise with each other. Wallflowers do well massed, or in alternate lines with Forget-me-not,



TUBEROSES FLOWERING OUTDOORS IN MR. BROOME'S GARDEN AT LLANDUDNO.

is still fostered in catalogues and Rose books) that the Manetti stock is best suited for Hybrid Perpetuals on a light soil is finally quashed. Undoubtedly this wretched stock has caused many a beginner to lose heart and discontinue the cultivation of the Rose. Plants worked upon it grow away merrily for a year or two, then a sort of creeping paralysis sets in and the plants gradually dwindle and die. When the plants on this stock do happen to be a success it may be simply attributed to the fact that they have thrown out roots of their own and for no other reason.

Fortunately many of the best nurserymen are gradually ridding their grounds of this stock, and at Cheshunt Mr. George Paul has long since had most of it thrown on the rubbish heap. "It has its uses," to quote Mr. Foster-Melliar, "in the propagation of new Roses, and in the growth of 'maiden' plants of most of the Hybrid Perpetuals for exhibition blooms," but when you have said this in its favour you have said all.

ARTHUR R. GOODWIN.

*The Elms, Kidderminster.*

(To be continued.)

firm with the foot before the plants are put in. The hole should be considerably larger than the space required for the roots, to allow the latter to have soil freshly broken up in which to start their growth. Such care may seem unnecessary, but careless planting and limp foliage will tell a tale during a spell of dry weather.

Hardy border plants respond readily to good cultivation, many of them requiring lifting every other autumn. When breaking up and replanting always choose the outside portion of the plants, as these are invariably the strongest and best to plant again. A change of position in the border has much to recommend it, providing as it does fresh soil for the roots of the young plants. Plants requiring this treatment cannot be separately specified, but by carefully noticing their foliage and flowers signs of ill-health can readily be detected. The cultivation may not be altogether responsible for this, as the situation also requires consideration; some hardy plants prefer damp soils and others dry ones. Towards autumn border plants that have passed out of flower present rather an untidy appearance, but beyond cutting off the withered blooms nothing can be



Silene, or Polyanthus. Tulips also look well with an undergrowth of either of those just mentioned; yellow and blue, white and red, or pink and yellow blend well, and are sure to be admired. Scarlet Tulips over a carpet of double Arabis are excellent, and so also yellow Tulips over Forget-me-nots. Tulips require an undergrowth of something, or the beds look bare most of the winter; and the same holds good with the Hyacinth. Daisies are more suitable for very small beds, or as an edging to larger ones; and I had almost omitted the gold cloud of Alyssum saxatile compactum. This with the pink Tulip Mr. Stanley, or Adelaide, is a rich sight. Plant all firm, especially Wallflowers and Stocks, and apply water in the middle of the day if the soil is dry. Pansies and Violas are both useful for spring flowering, doing best where the soil is not too light.

Bicton Gardens.

J. MAYNE.

### LILIES IN 1905.

ALL gardeners will sympathise with Mr. Reid in his disappointment at the behaviour of his Lilies in 1905. Readers of THE GARDEN have been accustomed to peruse with envy his accounts of his former successes, especially with such a difficult subject as *L. Parryi*. With reference to *L. auratum*, I have noticed of late years the difference of constitution exhibited by the type and *L. auratum platyphyllum*. Last year, when I was in Ireland during the late spring, I saw in

had been placed about 6 inches beneath the bulbs, and about half of the upper soil was composed of well-rotted peat-moss-fibre litter. I never saw such vigorous examples. The finest measured 7 feet in height, and carried twenty-six flowers, and several others were almost as good. This was in the neighbourhood of Chepstow. This dry garden I always considered utterly unsuitable to Lilies until I found that *L. candidum* flourished exceedingly, and was never affected by disease, since when I have planted *L. Henryi*, *L. excelsum* (testaceum), *L. chalcedonicum*, and *L. sulphureum*, which did fairly well in 1905, their first season.

S. W. FITZHERBERT.

## NOTES ON HARDY PLANTS.

### CHRISTMAS ROSES.

THE accompanying illustration shows a colony of these charming flowers in bloom, during the month of January, in a Fern border at Kew. It is true that the mild winter experienced has been most favourable for their development, for since the middle of December they have produced a succession of flowers very welcome at a dull period of the year when so little is to be seen outside. They are growing in ordinary sandy loam without any manure, the only

leaves 2 feet and 3 feet in diameter, others have lost nearly all theirs during the winter months. Under the most favourable conditions the Christmas Rose is practically an evergreen plant, and when the leaves are lost prematurely it is a sign that some conditions essential to their well-being are lacking.

Of the forms in cultivation *H. niger* var. *altifolius* is probably the most common. It is also known as *major* and *maximus*, and is the most robust variety, with large leaves on long petioles, and white flowers 4 inches to 5 inches in diameter, often tinged with red. A distinct form also is the narrow-leaved variety, *H. n. angustifolius*, which also varies to some extent. It has smaller flowers than the above, some pure white, others tinged with red. Between the above extreme forms are the many varieties which have received names, such as the *St. Brigid*, *Riverston* variety, *Mme. Fourcade*, and others. The last-named is also one of the latest in flower with medium-sized blooms. These plants will repay the trouble of selecting a suitable position, and such a place might be found in most gardens. Their chief requirements are shade during the hottest part of the day, deep culture in rich loamy soil, and liberal supplies of water during the growing period.

W. LIVING.

## SOME BEAUTIFUL ANNUAL FLOWERS.

(Continued from page 98.)

### LINUM GRANDIFLORUM.

THIS is one of the most brilliantly coloured of summer annuals, with crimson rose-coloured flowers. It grows about 1 foot high, and may be had in bloom from May to October by successive sowings.

### MALOEPE TRIFIDA.

The Mallow Wort is a showy plant, with large, glossy, rose-coloured flowers, shaded blood-crimson towards the centre. It grows about 2 feet high, and likes rich soil and an open situation. There is also a white variety.

### MENTZELIA LINDLEYI (BARTONIA AUREA).

This is a handsome plant, growing about 2 feet high, and bearing large golden yellow flowers. Seeds should be sown in April in the place where it is to flower. It does best in a warm, sunny position.

### NEMOPHILA INSIGNIS.

A pretty dwarf plant with sky blue flowers, useful for carpeting small beds or forming ribbon borders. Seeds should be sown in August for spring flowering, and in April for bloom in summer.

### NIGELLA DAMASCENA (LOVE-IN-A-MIST).

Well-known graceful border plant with the flowers partially hidden by the fine feathery green bracts. There are varieties with blue and white flowers. Seeds should be sown in March.

### ENOTHERA (GODETIA).

The Godetias are amongst the most beautiful of hardy annuals. They are of compact growth and very free flowering, being covered with large, handsome flowers of brilliant and delicate shades.

### THE POPPIES.

This family contains several brilliant annual kinds of great value for garden decoration. One of the best is the Caucasian Poppy (*P. umbrosum*), with intense deep scarlet flowers, having a black blotch at the base of each petal. It requires to be sown in autumn. Perhaps more graceful are the Shirley



CHRISTMAS ROSES AMONG FERNS IN THE ROYAL GARDENS, KEW.

a garden large beds of herbaceous Peonies in which hundreds of *Lilium auratum* bulbs, both the type and the variety *platyphyllum*, had been planted two years previously. The fresh stems of the type were in every case smaller and weaker than the preceding year's stems, which had been left and sometimes were altogether absent, while in the case of *L. a. platyphyllum* the new stems were invariably stronger than the old, thus indicating increased instead of diminished vigour. I always now recommend my friends, when purchasing this species, to get nothing but *platyphyllum*. Of old it was thought that manure in any form was poison to Lilies, but in the case of *L. speciosum* specimens that I saw last year went far to discredit this opinion. A layer of manure

mulching they get being some decayed leaves used for top-dressing the Ferns amongst which the Hellebores are growing. Shaded on the east and south by trees, they only get the afternoon and evening sun, and even then they receive a certain amount of shade from the foliage of the Ferns. With these, however, they obtain plenty of water during the summer months, which seems to suit them admirably, and they make luxuriant growth. There are many forms of the Christmas Rose, several of which have received distinctive names, and in the group under notice are several varieties differing in size of flower and in the height and size of their leaves. Some forms retain their foliage so much better than others, for while several plants have masses of healthy

Poppies, a strain of great beauty, with satiny flowers ranging in colour from delicate shades of rose, salmon-pink, and blush to glowing crimson, all with white centres. They may be sown in autumn or spring, and should be used extensively for shrubberies or large borders.

#### PHACELIA CAMPANULARIA.

One of the most lovely blue flowers in cultivation, coming into flower quickly from seed sown in March, and bearing a profusion of gentian blue flowers. It is about 8 inches high. Another handsome annual belonging to this genus is *P. Whitlavia*, with Gloxinia-like flowers of violet-blue and white.

#### PHLOX DRUMMONDI.

A half-hardy annual, varied and brilliant in colour; it is an important plant for beds and borders, and requires to be sown in heat in March and the seedlings pricked off into shallow boxes as soon as they are ready. After making nice-sized plants they may be gradually hardened off and planted out when the weather is suitable.

#### THE SUN PLANT.

Given a warm place and light sandy soil, the *Portulaca* surpasses all other outdoor plants for brilliancy and beauty of colour. They are admirable for carpeting the ground in sunny situations, while the colour of the flowers varies from crimson and yellow through every shade to pure white. There are both single and double forms. Seeds should be sown thinly during April or May.

#### SPECULARIA SPECULUM (VENUS'S LOOKING GLASS).

This is a pretty dwarf-growing annual closely allied to the *Campanulas*. The flowers are violet-blue, with a white eye, produced freely on bushy plants, which often reproduce themselves annually from self-sown seeds.

#### STATICE (SEA LAVENDER).

The flowers of most *Statice*s are everlasting, and are much valued for drying. The annual varieties come up freely from seed sown in April, although they are obtained earlier in flower by raising in heat and planting out when large enough. The best kinds are *S. Bonduelli*, with bright yellow flowers; *S. sinuata*, with deep blue and also white flowers; and *S. Suworowi*, with long spikes of rose-coloured flowers.

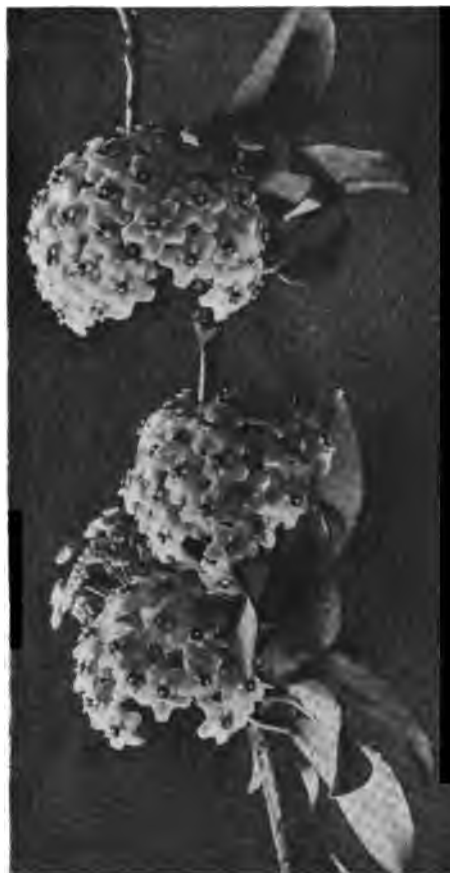
The above list of annuals does not include by any means all those worth growing, and many more of great merit might be named, such as *Argemones*, *Antirrhinums*, *Dianthus*, *Limnanthes*, *Nicotiana*, *Petunia*, *Scabious*, and a host of others. W. IRVING.

## THE FRUIT GARDEN.

### MIRABELLE PLUMS.

SEVERAL varieties of small-fruited Plums, which pass generally under the name of *Mirabelles* in France, have been tried to some extent in Britain, and are favourites wherever the soil and situation permit them to be grown with a measure of success. The fruits, though small, are freely produced, and a delicious preserve can be prepared from them much like a mixture of Plums and Apricots. Two of the best I have grown are *Mirabelle Précoce* and *Mirabelle Petite*, both of which have yellow fruits, dotted with crimson, the former rounded and ripening at the end of July or the beginning of August, the latter more oval and nearly a month later.

When well ripened the fruits have a peculiarly rich, aromatic flavour that is quite distinct among Plums. The trees are of moderate growth and well suited for the bush form, but they flower early and need a warm, sheltered position or some protection at blossoming-time. They are far more hardy, reliable, useful, and of better quality than any of the Japanese Plums I have tried outdoors. *Mirabelle Grosse*, which is more frequently grown under the names of *Yellow Perdrigon* or *Drapp d'Or*, is also a finely-flavoured variety, and *Mirabelle de Nancy* is in the style of *Mirabelle Petite*, with larger fruits, somewhat later in ripening. *Mirabelle d'Octobre* has been described as identi-



THE WAX FLOWER (HOYA CARNOSA).

cal with *Sainte Catherine* and *Bricette*; it is of stronger growth than those previously mentioned, and the fruit, though similar but lighter in colour, is a clingstone, while all the others are freestones. The flavour is rich when the fruit is well ripened, say, in September. All need a freely-drained, rich, warm soil. LEWIS CASTLE.

### APPLE DUKE OF DEVONSHIRE.

As a late-keeping dessert variety of high quality this Apple deserves to be widely grown. Mr. George Banyard very properly considered it worthy of inclusion in the best hundred Apples of "The Fruit Garden," and a large proportion of those growers who have tried the variety under fair conditions would confirm that opinion. The tree is of free growth, and does well either as a pyramid or standard. It crops well, and is a reliable bearer. The fruit is of medium size, round, yellowish when ripe, with a little russet, and sometimes a slight reddish tint. The flesh is crisp, and possesses an abundant aromatic juice when well matured on the trees and carefully stored. It is in use from the present time until May, and keeps its flavour wonderfully

well, rarely shrivelling if gathered at the right time. The origin of this Apple I have failed to ascertain, and no record regarding it has come under my notice. Strangely enough, several other "dual" Apples are in the same category; for instance, *Duke of Bedford*, described by Dr. Hogg as a first-rate culinary Apple, does not seem to be in cultivation now, and I have not seen *Duke of Gloucester* (culinary) except in the last edition of the "Fruit Manual." *Duke of Beaufort* (culinary) I have not seen for some years. *Hunt's Duke of Gloucester*, a dessert variety raised from the *Old Nonpareil*, was a favourite at one time, but seems to have disappeared. R. L. CASTLE.

## THE GREENHOUSE.

### THE WAX FLOWER.

WHEN planting a house with roof flowers, a trio of fine climbers call for notice. They are red and white *Lapagerias* and the Wax Flower (*Hoya carnosa*). All are evergreens, and no one doubts the beauty of their blossoms. For *Lapagerias* a good deal of space is required. A house 20 feet in length will do them justice, if the shoots are trained over the paths and not across the width of the house. *Hoya carnosa* is a much less luxuriant grower. The best temperature for the *Hoya* is that of a warm greenhouse. During summer fire-heat is only required at night and in the early morning.

A good start may be made with a young plant for greenhouse use. Tie its first shoots to stakes, and when 3 feet or so in height it may be secured to wires or strings near the roof. Do not secure the shoots by twisting them round the wires at first. Several years will elapse before many flowers are produced, but in a warm greenhouse the growth will make far quicker progress than in a cold house. If the pot stands upon a gravel or ash-covered plant stage, there will be no need of repotting. By enlarging the hole of the pot the roots will escape into the gravel, &c., which, if undisturbed, will be as good a rooting-place as a prepared soil. If this is not convenient, only pot after the pot becomes full of roots, and then use a mixture of sandy peat, with some loam and broken brick rubbish. As a guide to size of plant and pot, one with shoots 5 feet in length should be well flowered in a 6-inch pot.

Many Wax Flowers have a bad time of it when planted out against the back walls of a greenhouse. If there is sufficient heat, and no sun-obscuring plant stage in front, this makes an excellent site for them. But planted in beds as *Passifloras* might be, and afterwards carelessly watered, the plants become exposed to perpetual wet and shade. When lifting a plant of this kind there is no need of tools. Almost every root will probably have decayed, and a hand pull will bring the rotting stem out of the ground. The only thing to do in restoring the plant, assumed to be a large one, after taking cuttings, is to shake all the soil off, and cut every piece of dead root away. Pot in brick rubbish with scarcely any soil, place in warmer house, keep the remains of the root dry, and the stem fresh by frequent light syringing. At all times the *Hoya* may well have the attention given to *Cape Heaths*, as regards careful watering, and when planted in a bed, the chosen spot should be free from stage drip, and the soil rendered porous and drier by a



liberal intermixture of broken brick. If shoots 12 inches or so can be spared as cuttings, it saves time, but smaller pieces of last year's growth root freely if inserted in small pots of sandy peat and kept in a shaded warm position. There are many fine plants among this genus, but *Hoya carnosa* is the best known, and certainly combines easy growth and great beauty in a greater degree than the rest.

A native of Tropical Asia and Australia, it was first grown in England early in the nineteenth century; but the plant has never become common. At Trinity Grove, Edinburgh, the residence of Provost Mackie, is a fine example of *Hoya carnosa*. Raised from a cutting eight years ago by Mr. Mackenzie, the present gardener, the plant now covers a space on the low roof of 100 square feet, in a house where the temperature does not fall below 57° in winter and 65° in summer. The plant is in an 8-inch pot, but

prettier. It is apt to lose its lower leaves, which detracts somewhat from its beauty, a difficulty that may be surmounted by not inserting the cuttings till later in the season, about the second or third week in June being a good time.

*Easton Neston Gardens*

G. F. HALLETT.

## THE ROCK GARDEN.

### ROCK GARDEN-MAKING.

#### XXII.—BOG GARDENS IN CONNEXION WITH ROCKS.

HAVING dealt with streamlets, ponds, and waterfalls, I will now mention another, perhaps, equally important form of water among rocks, namely, bog beds and their construction. From a useful, as well as from an ornamental, point of view, a well-arranged bog garden should form one of the most desirable adjuncts to a

### NATURAL BOGS.

If we should be lucky enough to possess a natural swamp which can be connected with the rock garden little more will be required than to ensure perfect drainage. On the other hand, it must be borne in mind that too much drainage would leave the site too dry for the cultivation of bog plants. The best arrangement of all is one which would enable us to keep both the water supply and the drainage under perfect control. An excellent opportunity of doing this is offered when the bog bed is slightly sloping and a natural stream is in such close proximity that it can be tapped for the purpose of supplying the necessary moisture. In such a case little more will be necessary than to insert an ordinary drain-pipe at the side of the stream and to connect with this a few branch pipes so arranged as to distribute the water evenly. The latter will naturally find its way to the lowest part of the bog garden, but not until it has thoroughly soaked the whole, when it might be made to rejoin the stream at a lower level.

The drain-pipes need not traverse the whole bed, but should be capable of ensuring a fairly even distribution of the water. By means of a plug connected with the main pipe in the stream the quantity of water can easily be regulated, or, if desired, the supply can be stopped altogether. That all pipes must be completely hidden by soil, rocks, or plants, goes without saying. Sometimes the overflow of a pond, instead of running to waste, might be effectively used to do duty in the bog garden. If the natural soil is unfit for the cultivation of bog plants, it must be excavated deep enough to allow for a liberal supply of leaf-mould, peat, and loam mixed with sand and gravel. For most plants a depth of 15 inches to 18 inches of good soil would be sufficient, but for *Cypripedium spectabile* and others a greater depth would be desirable.

### ARTIFICIAL BOG BEDS WITHOUT CEMENT.

When the water supply is scarce and has to be furnished by a small spring or by a pipe of limited size it will generally be found advisable to excavate a kind of level basin, made watertight by means of clay-puddle and provided with an outlet and overflow. Sometimes the subsoil consists of an impervious clay, and if so the work is made easy. Since practice is better than theory in such matters, I will give an example of actual work recently completed and further explained by the accompanying three illustrations. The first one shows the site for a proposed bog garden in the grounds of Mr. C. Bewes, at Gnaton Hall. It is situated not more than 30 yards or so from the waterfall illustrated on page 131 of *THE GARDEN* of March 4, 1905. In the foreground are patches of weedy grass and rough sedge. On the extreme right under a (then still leafless) branch of an oak tree a Bambo



SITE FOR THE BOG GARDEN AT GNATON HALL (PHOTOGRAPHED IN MAY).

its roots have pushed through into the gravel. Hundreds of flowers expand from May to August, when their peculiar perfume is noticeable. Many sprays, of which the illustration shows only a portion, have to be cut away to prevent overcrowding.

D. S. FISH.

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### MOSCHOSMA RIPARIUM.

REFERRING to the article in *THE GARDEN* of the 3rd inst., page 69, by your correspondent Mr. Bound, allow me through your columns to endorse the good opinion he has formed of it. Nothing is more useful, I am sure, for the winter, either for pots or cutting; it will, I am sure, when more known, be quite as welcomed by the majority as the useful *Coleus thrysoides*. Not long since I saw a fine group of this, together with *Coleus thrysoides*, and nothing could have been

rock garden. Although the term "bog bed" is sometimes used, there should, of course, be not a vestige of regularity visible if such a bed is to be associated with rocks of natural appearance. If, for the purpose of retaining the water, cemented basins or other contrivances are necessary, they can easily be hidden by natural grouping and by being filled up in such a way that no one would suspect their presence. Whatever the shape of the bog bed might be below the surface of the ground, it will be found most effective only if above ground no hard- and- fast dividing line appears at all. A bog garden enables us to add to the rock plants. We cultivate such as would require an extra degree of moisture, and if both shady nooks and moist but sunny quarters can be arranged for them, so much the better.

(*Arundinaria japonica*) will be noticed, whilst on the left is a high Laurel hedge and a stony bank covered with weeds. Adjoining this is an ordinary rough hedge forming the boundary of an orchard, and in the background a long shed is conspicuous for its ugliness. By the side of the hedge a small but continuous spring was discovered, and this led to the suggestion of a bog garden on this side. The second and third illustrations show the same site photographed exactly two months later. In the case of the former my camera was fixed on the same spot as when the first view was obtained, but the latter shows the view in the opposite direction. The rough hedge and weedy banks are cleared away completely. The soil was then excavated much farther back than the original hedge, and the soil thus gained was used for the construction of a rocky bank high enough (when planted) to hide completely the ugly shed and its surroundings.

As the planting had to be done in July, the rock shrubs and other large plants had been previously prepared for this by being grown in large pots and wicker baskets. As the subsoil consisted of very tough clay, a water-tight basin was easily produced by excavation only. The spring previously referred to proved more than sufficient to keep this basin filled 1 foot deep with water. Instead of filling up the whole basin with suitable soil I arranged for a series of irregular stepping-stones with natural open channels of water between them here and there. Water thus introduced is an excellent indicator of the depth to which the soil is saturated. In some places the soil was kept almost level with the water surface, whilst in others it was raised considerably above it, according to the requirements of the plants to be used.

The illustrations show, among other plants, *Sarracenia purpurea*, *Sarracenia exoniensis*, *Iris Kämpferi*, many sorts of Gentians, *Cypripedium* of sorts, *Primula rosea*, *Primula sikkimensis*, *Ourisia coccinea*, *Shortia galacifolia*, *Spigelia marilandica*, &c., whilst for carpeting the ground between taller plants *Houstonia serpyllifolia*, *Mitchella repens*, *Pratia angulata*, and others were used. Away from the smaller plants a bold effect was produced by such things as *Rodgersia podophylla*, *Saxifraga peltata*, and similar kinds.

F. W. MEYER.

*Elmside, Exeter.*



MR. C. BEWES' BOG GARDEN AT GNATON HALL (PHOTOGRAPHED TWO MONTHS LATER).



STEPPING-STONES AND WATER CHANNELS IN THE BOG GARDEN AT GNATON HALL.



# GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**FRAMES AND GREENHOUSES.**—The amateur interested in his garden soon finds himself in need of a protective structure of some kind, however simple, either to strike a few cuttings in, for the raising of choice seeds, or to grow one or two favourites that need a certain amount of shelter in winter. The simplest appliance is what is termed a

*Cold Frame*, that is to say, a shallow wooden box, which may be anything from 18 inches to 2 feet high at the back, and 1 foot to 18 inches at the front. In this way the glazed lights, which are made to fit on the top and thus form the roof of the miniature greenhouse, have sufficient slope to carry off the rain readily. For the majority of plants the best position for such a frame is due south, or, at all events, where it will get a good deal of sun. The piece of ground selected for the frame should have a good coating of fine coal-ashes, made very firm and level, as this will prevent worms from getting into the pots when they are stood therein. Then, when the frame is placed in position, a few more fine ashes should be put in, as this will serve to raise the interior of the frame somewhat above the level of the surrounding ground. Such a frame can be readily made with a few boards, but so many horticultural builders make a speciality of such work, that unless some special circumstances exist, this will be found the cheapest way of getting one. Span-roofed frames, such as may be seen in the advertisement pages of *THE GARDEN*, are equally good, but, of course, somewhat more expensive.

*Plants for a Cold Frame.*—A vast number of plants may be grown in a cold frame, but perhaps the best use to which the beginner can put it is to grow various hardy subjects which, with the amount of protection thus afforded them, anticipate by some time their usual season of blooming out of doors, and at that period the flowers are, of course, additionally welcome. A great many of the ordinary bulbous plants, if potted in September, may be kept in the frame, and some of them be in bloom soon after Christmas. Among the subjects available for this treatment may be mentioned Narcissi, Hyacinths, including the pretty little white Roman variety, Tulips, particularly those of the early-flowering *Duo van Thol* section, the bright blue *Soilla sibirica*, the equally attractive *Glory of the Snow* (*Chionodoxa Lucilis*), and *Chionodoxa sardensis*, Crocuses; in fact, all kinds of early-flowering bulbs are hastened by this amount of protection. The bulbous Irises—such as *I. persica*, *I. reticulata*, (the *Netted Iris*), and *I. Hiatic*—all do well with ordinary care; indeed, I saw during the middle of December a beautiful lot of *Iris persica* flowering in a cold frame. They had been potted about the end of September, and had rapidly developed blossom. Christmas Roses, too, are very beautiful when treated in this way, and the hardy Cyclamen forms a bright feature. Hosts of other things are also available, and the owner of a garden will soon find a frame extremely handy for all kinds of purposes—occasionally to nurse a sickly plant into health, to protect any that have been divided till their roots recover from the check, and to shield tiny seedlings or to strike a few cuttings. When the various bulbous plants above enumerated are out of flower, the frame will be available for various plants that bloom during the summer, as by the middle of April Tuberous Begonias may be potted and stood therein, and different tender subjects, such as Geraniums and Fuchsias, will be quite safe if a

mat or two be put over the glass at night. If there is no greenhouse, Tuberous-rooted Begonias may be potted on and grown into specimens with the protection of a frame; or it may be given up during the summer to propagating, as a great many plants will strike root readily in it at that season. For cuttings of all kinds, except those of Geraniums, it will be necessary to shade the frame from the sun's rays. Throughout the winter a covering of mats over the glass at night, and even all day when freezing, will be very helpful; and it is a great assistance to bank up the frame all round with long stable manure or some good protecting material, to prevent the frost penetrating the boards at the sides.

*Making a Hot-bed.*—Again, if desired, a hot-bed may be made up in the spring, and the frame stood on it, in which case it will be available for more tender subjects, such as the raising of seeds of Tomatoes, Vegetable Marrows, Cucumbers, and similar things, as well as the striking of cuttings of different bedding plants that are benefited by a little heat. A hot-bed may be formed of stable manure, fallen leaves, grass, or any similar matter. The whole must be turned over and well mixed together on alternate days four or five times. In making up the bed, it should be fashioned at least 3 feet wider all round than the frame which is to stand on it, and a thickness of 3 feet to 4 feet is necessary; otherwise, if too shallow, the heat lowers very quickly. In turning over the materials before making up the hot-bed, they should be watered if too dry, and in forming it the whole must be firmly and evenly trodden down, in order to maintain the heat. All rank steam must be allowed to pass away before the seeds or plants are placed therein, and to assist this a little air may be left on night and day till all danger is past. A layer of ashes or Coconut refuse may be placed in the frame to stand the pots on.

*Asparagus.*—Asparagus is easily forced with a bottom-heat of 75°, with a top-heat of 65°. The roots should be lifted carefully, not damaging the crowns or breaking the roots unnecessarily. Place them close together in a pot, and cover with fine soil to a depth of 3 inches or 4 inches, giving a good watering with tepid water to settle the soil amongst the roots. During frosty weather cover the ground with warm manure the evening before lifting, to prevent it becoming too hard.

*The Dwarf Fan or Cluster Bean.*—This is a very good Bean for the small garden, as it is more compact in growth than the Longpods or Windsor. The Beans grow in clusters, are more freely produced than other varieties, and are as early as the Longpods. It is very hardy, and for early planting perhaps it may not be generally known how well these Beans transplant. We have raised the Beans in boxes, and planted them out without giving them the least check.

*Some Good Old Strawberries.*—The modern Strawberry is a large fruit, but it does not possess the flavour of some of the old sorts, especially British Queen, which somehow is disappearing. President also is a good-flavoured variety, and Vicomtesse Héricart de Thury—or Garibaldi, as it is sometimes called—will grow and fruit freely where other sorts fail. I have tried several of the more recent late-fruited small varieties, but have not met with any having a flavour equal to that of the alpine (white and red) which we grew years ago.

*Gas Lime in the Garden.*—If used in large quantities the land must remain uncropped for a time, till its properties have been taken up and distributed in the soil; but if 1 lb. per square yard were not exceeded no harm would be done to any plants or trees if distributed equally over the surface. And though this dressing would not kill insects and weeds, it would benefit the soil and help to fit it for the growth of plants. The principal effect of these and similar applications to the soil, so far as regards insects, is not to kill, but to intimidate and banish.

*The Value of Salt on Porous Soils.*—Salt attracts moisture, and hence its value on soil which rapidly loses its moisture. I have used salt at the rate of ½ lb. to 1 lb. per square yard at all seasons of the year, but specially through the early growing season, with manifest advantage. I have scattered it among growing Onions and other plants and left it on the surface to be gradually dissolved by the atmosphere.

*The Green Rose (Viridis).*—The question of the green Rose occasionally crops up, and its origin appears doubtful. The late Mr. Rivers, in a communication to the *Floricultural Cabinet* a good many years ago, said he received it from France. Some three or four months ago a correspondent in South America sent us a blossom which appeared to have more petals on it than



SNOWDROPS GROWING IN PAN,

the green Roses met with in this country. It has been known here for more than fifty years, but where it came from no one seems to know. It has no value in the eyes of florists; it is merely a curiosity.

*Laying Out Small Gardens.*—There are thousands of small gardens in England that are totally incapable of giving pleasure to the artistic eye, because they are laid out without taste. One has only to walk by some terrace in the outskirts of a large town, and look at the little plots, from 100 feet to 500 feet square, that front the houses, to see to what a dull level of uniformity gardens can descend. All have a family likeness. None show any trace of individuality, though some of their proprietors are fond of flowers, and spend much of their spare time in watering, staking, and picking off withered leaves. They are not gardeners' gardens, but architects', drawn out in the office with a view to the saving of as much labour and capital as possible. Yet a small garden may contain the elements of beauty every whit as much as one of large extent, as may be seen from the charming pictures afforded by the little plots surrounding some labourer's cottage in a country village. Here the white Madonna Lilies and the tall pink Hollyhocks grow in matchless perfection, and Stocks, Pinks, old double Rookets, and Cabbage Roses burden the air with fragrance, and the Jasmine's starry, scented clusters peep into the upper windows. There are no gaudy lines of colour, no rule of thumb here, but a graceful abandon, every plant seeming to have chosen its place in the garden, and to be thoroughly contented with its lot. In laying out or remodelling a garden, the first thing necessary is to know what to avoid. In planting a garden many people appear to be utterly incapable of looking forward. The tree that for five years may not be out of place will, as time elapses, become too large for its site, and the Deodara, planted 10 feet from the path, has either to be destroyed, or to be robbed of its beauty by having its branches on one side cut back, so that they may not encroach upon the path. Large-growing trees are out of place, for they eventually cast such a dense shade over the garden that no plants will thrive, and the Monkey Puzzle (*Araucaria imbricata*), the most inartistic of trees, beloved of the speculative builder, should find a place in no garden, large or small, while we have so many beautiful native and exotic species at our disposal. There are many charming, spring-flowering trees of moderate growth well suited to the small garden. Amongst these may be mentioned the Hawthorn, the deciduous Magnolias, Almonds, Cherries, and Plums, now all merged into the genus *Prunus*, including such lovely examples as *Prunus triloba*, *P. Watereri*, *P. J. H. Veitch*, *P. serrulata*, *P. pendula*, and *P. cerasifera atropurpurea*, better known as *Prunus Pissardi*, *Pyrus floribunda*, the Snowy Mespilus (*Amelanchier canadensis*), and the Snowdrop Tree (*Halesia tetrapetala*). In shrubs, again, there is great room for improvement, and instead of the almost universal Laurustinus and Portugal Laurel, such things as the Lilacs (*Syringa*), Weigela or Diervilla in variety, the Syringas (*Philadelphus*), the Brooms, of which the white *Cytisus albus* and the early straw-coloured *C. praecox* are two of the best, the Japanese Viburnum plicatum, the Pearl Bush (*Exochorda grandiflora*), Kerria, single and double, the white Kerria (*Rhodotypos kerrioides*), the hardiest of the Escallonias, *E. philippiana*, the hardy Daisy-bush, *Olearia Haastii*, the catkin-bearing *Garrya elliptica*, and the handsomest of the Tamarisks, *T. hispida aestivalis* may well be planted, while the Yuccas are very effective, and well suited to even a small garden. Where fruit trees are grown they should be relegated to a corner of the garden, and not planted all over it, as is sometimes done, or they will eventually so shade the ground as to interfere with the culture of other plants.

Hedges in a small garden are a fatal mistake. No hedge of any description should be tolerated in such a garden, not even one of a handsome flowering shrub, for hedge-roots appropriate all the sustenance in the border, and it is impossible to grow plants well close to a hedge. As a rule, hedges in small gardens are composed of the worst material, the common Laurel or evil-smelling Privet. These are allowed to grow until they are often 4 feet or more in thickness, and effectually prevent any satisfactory gardening in their vicinity. There is no objection, in a large garden, to hedges being used for certain of the dividing lines, and a well-grown Yew hedge, where only a gravel path or grass approaches it, and plants are not grown in close proximity, forms a useful and ornamental screen. Where a wall is not present, a strong wooden fence, preferably made of Oak, and painted an inconspicuous green, will form a good boundary line, and against this climbing Roses and many of the beautiful flowering creepers that we have will grow readily, and soon hide the wood with foliage and blossom.—S. W. FITZHERBERT.  
(To be continued.)

### THE TOWN GARDEN.

*Flowers in the Unheated Greenhouse.*—The accompanying illustrations are of plants grown in the cold greenhouse, that is to say, a house not heated in any way. They are only two of many plants which may be had in flower in the cold greenhouse early in the year. No plants give greater pleasure, perhaps, than those which bloom when there is so little in flower out of doors. Even in the small town or suburban garden a cold glasshouse will, if properly managed, form one of its most delightful features. Many amateur gardeners and beginners try to grow plants in a heated greenhouse, and often give up in despair owing to their inability to keep up the required temperature during the winter months, and the difficulty of having it properly attended to during their absence from home. The management of the cold greenhouse is quite a simple matter, and anyone who has the space in which to erect one would find this method of growing plants a most delightful one. A large number of early-flowering bulbous plants and alpine may be successfully grown in it, and they may be had in flower while similar plants growing outside have yet failed to show above ground. Take, for instance, the Snowdrops, shown in one of the accompanying pictures; these were a delightful feature in the cold house several weeks before any were in bloom outside. In addition to the Snowdrops, such bulbs as Daffodils, Hyacinths, Tulips, Crocuses, Scillas, Irises, and Anemones may be grown in this way. They should be potted up or put in pans in early autumn, covered with ashes, and left out of doors until the growths begin to show through the soil. They may then be brought into the cold greenhouse, and, if carefully tended will give a good display of flowers early in the New Year. They will need little water until the pots and pans become well filled with roots. Other plants which may be brought into flower early in the cold greenhouse are Saxifragas, Cyclamen, Arabis, Alyssum, Iberis (Candy-tuft), Sedums, Adonis, Forget-me-not, Trillium, Dielytra, Allium, Trollius, and others. When



SAXIFRAGA GROWING IN POT.

the latter have finished flowering they should be turned out of doors and kept there the summer through. It should be remembered that these plants are really perfectly hardy; therefore when they have served their purpose of beautifying the cold greenhouse early in the year they must again be treated like other hardy plants. Even when they are in the house air should be given whenever the weather will allow; the house should be kept closed only during severe frost and when cold winds are prevalent. Give plenty of air, but avoid having the plants in a draught. Unless they receive plenty of air the plants will not make strong and healthy growth, and their flowering another year will not be so good. The non-bulbous plants will flower year after year, and even the bulbous ones ought to flower well for several years, for they are not really forced into growth and their vitality is not impaired. The Saxifraga illustrated is *S. bursaria* major.

*Irises for the Town Garden.*—There is no excuse for not growing some of the lovely dwarf Irises in either the town or the suburban garden. Even if the former does not boast a border at all, they may be grown in a window-box or in a pot or pan in a sunny window of the room. In the suburban garden a narrow border should be made at the foot of the house wall, and there they will grow to perfection. The soil should be taken out 12 inches or 15 inches deep; then put some broken bricks or lime rubble in for drainage, and fill up the hole with turfy, sandy soil, or, if that cannot be had, get some of the lightest of your garden soil and mix plenty of sand with it. These charming little Irises do not like a heavy, damp soil; it must be well drained and fairly light and sandy. They will grow splendidly in a narrow border, filled with such soil as this, at the foot of the house wall. I have them growing thus, and they are delightful at this time of year, when there is so little in flower out of doors in the average suburban garden. Those most suitable for the beginner are *Iris reticulata*, *I. histrio*, *I. histrioides*, and *I. Heldreichii*, all of which flower about now. *I. reticulata* has deep purple-coloured, fragrant blooms; those of *I. histrio* are blue, blotched with yellow; *I. histrioides* has flowers of bright blue; while those of *I. Heldreichii* are purple.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**HARDY ANNUALS.**—On a light and sandy soil, the first sowing of these, such as Candytufts, Calendulas, Calliopsis in variety, Sweet Sultans, Cornflowers, Echecholtzias, Linums, Linarias, and Poppies, may be made now in the open borders or beds where they are to flower. By sowing thus early, if the weather is favourable, these will follow the display of spring flowers provided by the seeds of annuals that were sown late in summer.

Sow thinly, and cover with a slight sprinkling of fine, dry soil. The smallest seeds need only just a dusting to cover them. As soon as the seedlings appear it is most important to keep them sufficiently thinned to prevent overcrowding, which weakens them, and tends to a short season of poor blooms, whereas by an early and bold practice of thinning the plants will become robust, and cover large spaces of ground with good foliage and well-developed flowers.

**LOBELIAS** occupy a prominent place as bedding plants; indeed, we have no other blue flower that can take the place of the compact class as edging plants, whilst the spreading varieties are admirably adapted for covering patches in the borders where bulbs are planted. The perennial varieties, *Lobelia Victoria* and *cardinalis*, are also almost indispensable; the intense scarlet colour of the flowers and their dark metallic foliage give them a conspicuous appearance. For planting in groups on the herbaceous borders they are extremely valuable. These may all be raised from seeds sown now in pans filled with light, sandy soil. It is a good method with all very small seeds, instead of covering them with soil, to immerse the pans in water, almost to the rim, until the soil has absorbed sufficient water to moisten the surface. By withdrawing the pans gently the seed will be drawn into the soil. Place the pans in a gentle heat, and cover with panes of glass until the seeds have germinated.

**HOT-BEDS** should be prepared now for seeds which are required to be sown in March or April. To those who have not the advantage of plenty of room in hot houses, recourse must be had to hot-beds made in the open of stable litter and leaves in equal proportions. When preparing hot-beds, care should be taken to make them large enough, so that when the frames are put on, a space of 3 feet is left from the frames to the edges of the beds. This will allow room for fresh material to be placed around the frames when the heat is declining. By this means the temperature in the frames may be kept fairly regular for a long time. The largest

**BEGONIA SEEDLINGS**, from seeds sown in January, must now be pricked off into boxes. Begonia seeds are somewhat irregular in germinating; great care should be exercised so as not to disturb the smaller seedlings.

**BEGONIA BULBS** which have been stored through the winter should be carefully watched. It is advisable to let them start naturally into growth, rather than to force them. Any that show signs of growth may be laid on an inch or two of rough leaf-mould in trays placed in cool houses. Gentle syringing will induce them to form roots. Keep them cool till it is safe to bed them in cold frames filled with leaf-mould, to be eventually hardened for bedding in June.

G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**AERIDES.**—The many sorts of *Aerides*, such as *A. Fieldingii*, *A. odoratum*, *A. crassifolium*, *A. Lobbi*, *A. affine*, *A. Lawrencei*, *A. quinquevulnerum*, *A. maculosum*, *A. crispum*, &c.,

should be attended to now with regard to repotting or renewal of the compost and cleaning. Many of them lose a number of their lowest leaves during the winter, especially the taller-growing, such as *odoratum*; these may be much improved by cutting away a portion of the stem at the base and placing them in the new receptacle so that the lower leaves are nearly level with the rim. I prefer to grow them in pots, but on no account should those growing freely in baskets be disturbed until the basket has decayed. When repotting place one large crook at the bottom of the pot, then place the plant in the centre, work the old roots around carefully, and avoid breaking them as far as possible. Fill the pot to within 1 inch or so of the rim with clean broken crooks, pot very firmly with good fibrous peat and living heads of sphagnum moss, and work in some rather large pieces of charcoal. If the work is done successfully the plant in most cases will stand firmly without the aid of a stick. Plants that do not require repotting should have the old material pricked out between the roots and replaced with fibrous peat and living heads of sphagnum, and the new roots should be made to enter the compost whenever it is possible to do so. It is usual to use nothing but sphagnum for these aerial-rooting Orchids, but with the addition of peat the percentage of leaves lost is considerably less. For some time after repotting they require very little water at the root; syringing between the pots frequently, and spraying the surface with a fine rose to keep the moss alive, are all that is needed, but when the roots become active water should be given whenever the compost shows signs of dryness. All the species mentioned should be grown in a moist and shady position in the East Indian house or stove.

**VANDA SUAVIS**, *V. sanderiana*, *V. insignis*, *V. Roxburghii*, *V. Parishii*, *V. lamellata*, &c., should also be attended to. Their requirements and those of *Saccolabium* are the same as advised for *Aerides*; in fact, where a collection of these aerial-rooting Orchids are grown it is necessary to devote one stage of the East Indian house to them.

**AERIDES VANDARUM** and the beautiful *Vanda coerulea* are cooler-growing Orchids, which should be repotted if necessary. The material advised above suits them well. They thrive best in a light, moist position in the intermediate house with a free circulation of air, but cold draughts must always be avoided. *V. coerulea* is thriving best when the new leaves are short and broad; when grown in too much heat the leaves get long and flabby, and the plant gets weaker. *Vanda teres*, *V. hookeriana*, and the hybrid between them, *V. Agnes Joaquim*, should be grown in full sun in the hottest house available and syringed very frequently now until they flower.

W. H. PAGE.

Chardwar, Bourton-on-the-Water, Gloucester.

### KITCHEN GARDEN.

**HORSE RADISH.**—In many instances the most neglected crop in the garden is the Horseradish, no real attempt being made to cultivate it in the proper sense of the word; it is left to take its chance, so to speak, on the same piece of land without any manuring for a number of years. Now is a good time to set about making a new bed or beds. Carefully dig out all the roots from the old bed (any pieces left will be sure to find their way to the top again), sort over the roots, lay in the stoutest for keeping up the supply for the kitchen, and prepare the best of the remainder for sets for planting in the same manner as recommended for *Seakale* throngs. The ground for the new bed should be well manured and trenched some time before planting. If the stock is weak, it is a good plan to mark off the ground into two or three beds, each bed in itself sufficient to yield a year's supply. Plant the stoutest of the sets in, say, bed No. 1, the next size in bed No. 2, and the smallest in bed

No. 3. Insert the sets with a dibber in rows about 15 inches apart, 10 inches in the row, and in holes 8 inches to 10 inches deep, filling in the holes by raking the bed. In the autumn, when the foliage has died down, lift all the roots in No. 1 bed and lay them in a convenient place for use, the other two beds remaining. No. 2 bed being used the second year, and No. 3 the third year. By this means a strong, healthy stock of stout roots will be obtained. No. 1 bed can be either trenched for planting again or another site prepared, whilst in the other two beds the roots are increasing in size by an extra year or two's growth. The Horseradish, being a gross feeder, requires liberal treatment during the growing season, and each winter on the two remaining beds a layer of well-decayed manure covered with fine soil should be added.

**SEEDS.**—A sowing can now be made on a mild hot-bed, or in a slightly heated pit, of Brussels Sprouts and Walcheren Cauliflower, and successive sowings of Lettuces and Cabbage. Veitch's Earliest of All Cabbage is one of the best for this sowing. Enfield Market is also a reliable variety. I make at this time the sowing of Red Dutch Cabbage for pickling, preferring plants raised at this season to those sown in the autumn. Sow in shallow drills, covering the seeds lightly with fine soil.

**CELERY.**—Make an early sowing of Celery in boxes, using fine soil, sow thinly, cover the seeds lightly, and place in a very gentle heat, covering the boxes till the seedlings appear. Celery should never be allowed to become dry from the time of germination.

**BROAD BEANS.**—Sow Broad Beans on a well-prepared border, inserting the seeds in double lines about 5 inches apart each way, and 4 feet between each set of lines. Beck's Dwarf Green Gem is a good variety for this sowing. Harden off gradually Beans sown in pots for planting out next month. See that plants in cold pits do not suffer for want of water; after watering and when the surface is dry give a dressing of soot and lime.

J. JACQUES.

Bryanston Gardens, Blandford.

### FRUIT GARDEN.

**PRUNING RECENTLY PLANTED FRUIT TREES AND BUSHES.**—Owing to the extreme mildness of the weather since the beginning of the year the buds are swelling fast; consequently the pruning of young fruit trees that were planted in November should be done without delay. Much diversity of opinion exists as to the proper method of pruning young trees, principally Apples and Pears; one authority recommends the cutting back of the shoots when planting to one-third of their length, another emphatically states that they should not be cut back at all, but left to be regulated with summer pinching and stopping. I prefer following a middle course, or, rather, it may be called following the first-named method, but at a much later period, namely, when the buds begin to swell in spring. Fan-trained trees, either dwarf or standard, bought as such from a nursery, should have from three to seven shoots, according to age, and, having been planted as previously directed, should now be pruned back to about one-third of their length. Any shoots showing a tendency to be stronger than the others should be left slightly longer, and all nailed or tied into their proper positions. After growth begins the shoots must be regulated by disbudding where necessary, and by stopping any that are taking an undue lead. Maiden trees that have been planted for cordons, whether single or double, if for clothing walls of limited height, will give the most satisfactory results if trained obliquely, inasmuch as they give the cordon a longer run before reaching the top. No pruning back of these will be required, for if the wood was well ripened and matured most of the buds will develop into fruit-buds the first season, and, if not, we can almost be assured of a good break of wood-buds of almost equal strength

from bottom to top. The leading shoot should be allowed to grow throughout the season, the others being pinched back to three or four leaves. The maiden may be said to be the primitive foundation of all the forms of training, and this is the form in which I would recommend all intending planters to purchase. Some raisers of fruit trees by a system of pinching or stopping develop in a single season the rudiments of a bush tree. This with a careful selection of stock has much to recommend it, as it hastens fertility.

**GOOSEBERRIES AND CURRANTS.**—These will require their leading shoots cut back to about 6 inches in length for a season or two until a sufficient number of branches for a foundation has been provided, cutting back to a bud pointing in the proper direction, i.e., upwards in the case of a variety with a pendulous habit, and outward with those showing an upward growth. Black Currants may also be cut over about the same length the first season; afterwards no regular shortening back of these will be necessary.

**BIRDS.**—At this season small birds play great havoc among the fruit-buds in some districts. Fresh dry lime dusted over the bushes while they are moist makes the buds distasteful to them, but frequent applications are necessary. In the vicinity of towns it is a good plan to run a number of black cotton threads among the branches.

**PROTECTING MATERIALS** should now be put into position ready to be used during frosty nights for protecting the blossoms of Apricots. Scrim cloth, so fixed at the top of the wall as to allow of easy and speedy manipulation, will in the end be found the most efficient means of protection. Remove early in the morning. Take decaying Apples from the fruit-room and admit air daily. Keep the Grape-room at an equal temperature, and look over the bunches twice a week to remove any bad berries.

THOMAS WILSON.

Glamis Castle Gardens, Glamis, N.B.

## BOOKS.

**The Book of Cut Flowers.\***—The art of preparing and arranging cut flowers for decorative purposes depends for its exposition more upon the artistic instinct and taste of the individual than upon any definite principles. Its indefiniteness, and the endless variety in form and colour of flowers and leaves at the disposal of the decorator, make flower arrangement a most difficult, most unsatisfactory subject upon which to write a book. Almost everything depends upon the artistic sense and natural skill of the worker; even the very best advice may lead to the poorest results. As the author of the "Book of Cut Flowers" himself remarks, using the words of Isaac Walton in reference to angling: It (the arrangement of flowers) "is somewhat like poetry: men are to be born so, with inclinations to it, though both may be heightened by discourse and practice." Flower arrangements, even with the same kind of flower, may differ widely the one from the other, and both be equally pleasing. Who can even arrange a vase of flowers in exactly the same way twice? Yet one may give quite as much delight as the other. Who shall say how a vase of flowers ought to be arranged? This is a question that does not admit of an answer. We can, it is true, lay down certain principles, and say that they may be followed with advantage; but even then a good result is by no means assured. The perfect way in which a flower or shoot disposes itself may just give that touch of natural grace or elegance, call it what you will, that satisfies us. To show how it is possible to set all laws at defiance, and yet achieve a result that is

entirely satisfying, we may mention that some of the loveliest vases of long-stemmed Tree Carnations we have seen were arranged simply by bunching the flowers in the hand, the blooms hanging downwards; then turning the stalks down the whole bunch was put in the vase together, each flower being allowed to fall as it would. Bearing in mind then that it is practically impossible to teach the art of arranging cut flowers, we believe Mr. Brotherston's book has come nearer to the impossible than any other of the few works published on the subject. The book is full of sound advice and good suggestions that are worth studying. The best way to help the floral decorator is to give negative information, to point out those things that must not be done, and this Mr. Brotherston has done in a most commendable manner. He lays stress upon the necessity of allowing each flower used to show its beauty, and rightly deprecates the evil of overcrowding, the most fertile cause of failure and the fault most easily committed in arranging flowers. The "Book of Cut Flowers" contains eighteen chapters and four appendices, and is divided into two parts. The first part treats of the relative value of flowers; fashion and taste in flowers and their arrangement; selection of colours; effect of light; scent; use of buds and foliage; selection of material; when and how to gather flowers; packing; decoration of rooms; preserving flowers; table, church, and ball-room decoration, &c. The second part contains particulars of the plants and flowers best suited to decorative use; much valuable information is given about each. The "Book of Cut Flowers" is the outcome of an experiment instituted by Mr. J. Martin White, Balruddery. Mr. White, through the Royal Caledonian Horticultural Society, offered prizes for essays on the cutting, arrangement, and preservation in water of flowers and foliage. Mr. Brotherston was awarded first prize, and thereupon was asked to write this book. The "Book of Cut Flowers" is certainly the most exhaustive work of its kind. Mr. Brotherston has succeeded in recording much valuable information upon a notoriously difficult subject, and in a way that calls for high praise. To illustrate cut-flower arrangement is perhaps even more difficult than to write about it, and it is hardly surprising to find that, with some exceptions, the illustrations are not very satisfactory.

## THE KITCHEN GARDEN.

### PARSLEY.

**F**EW plants grown in the kitchen garden are more in request the whole year through than the above, both for flavouring and garnishing; and to every exhibitor of vegetables it is indispensable, as there is nothing else that I know of which gives such a pleasing and effective finish as a groundwork of a good variety of well-grown Parsley to a collection of vegetables. And what is more beautiful to the eye in the kitchen garden during the summer and autumn than a nice border of a good strain?

For many years I have made a practice of sowing the seed in boxes during February, and raising it in gentle heat, planting it out on well-prepared ground during showery weather in April. This is a great gain over sowing in the open for early use, and the results are in every way far more satisfactory. To attain the best results over-crowding must be avoided. The plants should be put out 1 foot apart all ways, the ground being deeply trenched during winter, and well manured. It is well to remember that Parsley roots very deeply, and enjoys a good depth of broken soil. The young plants will require to be damped over during the evening should the weather be dry; and the finest stimulant I find

during the growing season is frequent dustings of soot when the weather is showery.

To ensure a constant supply during winter small sowings should be made in the open on a south border during July and August, and when the seedlings are of sufficient size, prick out into cold frames 8 inches apart, and as near the glass as possible; give air freely on every favourable occasion. This method will be found to give a plentiful supply all through the winter and spring. Three of the best varieties are Veitch's Splendid Curled, Dobbie's Exhibition, and Sutton's Dwarf Perfection.

### TOMATO SUTTON'S GOLDEN PERFECTION.

FOR some reason or another yellow Tomatoes do not find general favour, but I am at a loss to understand why this is so, as when well grown and ripened under glass the flavour of some sorts is quite equal to, if not better than, that of many of the red or crimson varieties. Judges, too, at our horticultural shows generally favour the red sorts in preference to yellow ones, however well these may be staged. In my opinion this is a mistake. The above variety is unquestionably one of the best in cultivation, and for quality and appearance is all one can desire. I am inclined to think that prejudice is one of the chief reasons why these do not find more general favour. I do not recommend them for outside culture, but where sufficient room under glass is at command, certainly a few plants should be included, both for variety and appearance.

Elstree.

E. BECKETT.

### NEW PEAS.

#### CARTER'S MAYFLOWER.

**LAST** season I had this variety sent me for trial, and it did so well that I am growing it more largely this season in place of an older variety. Mayflower is a first early with distinct Marrow flavour. It is a cross between the well-known Daisy and William Hurst; it has the splendid table qualities of the first-named, and what makes it most valuable, it is earlier. If sown now pods may be had freely in May on a sheltered border. It may be termed a free-grower, as the haulm is robust. Last year it withstood severe frosts and was our earliest variety. It is very prolific and, bearing a large pod, will be much liked when its good qualities are well known. It grows only 18 inches high, so that it is admirably adapted for early borders. It should also be most useful for pot or frame culture, and equally good for latest sowing in gardens that are at all short of space, as a great many pods are produced in a small area.

#### LORD ROSEBERRY.

This new Pea promises to be one of the best of the introductions of late years. When grown for trial in the Royal Horticultural Society's Gardens it was most noticeable for its heavy crop and splendid flavour. We have no lack of good main crop varieties and good standard kinds, and any new introduction now must be good to get an award. The new Lord Roseberry was sent by Messrs. J. Veitch, Royal Exotic Nurseries, Chelsea, and the award was given for its splendid flavour and good cropping. In some respects it is not unlike a good type of Ne Plus Ultra. It grows 4 feet to 5 feet high, has a vigorous constitution, and it has been free from mildew. It should make an excellent variety to precede the well-known Autocrat, one of the best late Peas we have.

G. WYTHES.

### POTATOES NOT DECAYING.

I HAVE been reading the correspondence in your valuable journal on the non-decay of last year's seed Potatoes. I sprouted mine in boxes, which they did quite strongly. Some were

\* The "Book of Cut Flowers." A complete guide to the preparing, arranging, and preserving of flowers for decorative purposes. By E. P. Brotherston. (T. N. Foulis, 8, Frederick Street, Edinburgh.) Price 3s. net.



planted whole, and some were divided. In each case only two shoots were allowed to remain. None of the sets decayed, but they caught the leaf-curl very early and very badly. The ground was manured the previous autumn, and left rough all the winter. As to the seed not decaying, is it not that the haulm, through getting the blight, ceases to grow, and the plant then has not sufficient vitality to exhaust the old tuber? It would be a great boon if a remedy could be found.

Cookham Rise, Berks.

E. ROBINSON.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

**VIOLETS (F. H. A. T.).**—It will take three dozen plants of the varieties of Violets you mention to fill a frame of the dimensions given. The best time to procure the plants is the last week in March. They will grow best if you will plant them in well cultivated and manured land in the garden in a position where they can have partial shade from the hot midday sun. They should be planted 15 inches apart in the row, and the rows should be 18 inches apart. Water in dry weather, and keep the ground clean by hoeing. The plants will throw out some side runners during the summer; these should be cut off until the end of August, after which they may be left on. By this time, if all has gone on well, the plants will be large and strong, and at the end of September may be lifted from the border with a good ball of soil round their roots and planted fairly close together in the frame in the same sort of soil in which they have been growing. Keep the lights off in fine weather, but protect from hard frosts and bad weather. Always give a little air unless the frost is very severe.

**ROCK GARDEN (Hampstead).**—Your best plan would be to consult a local nurseryman, and get an estimate from him. Tufa, Derbyshire spar, and millstone grit are suitable, the latter for building walls. Stone, however, may also be obtained direct from the quarries. For furnishing the rockery after it is built the following plants would be suitable: *Arabia*, *Aubrietia*, *Acæna microphylla*, *Saxifrages* of various kinds, including *S. longifolia*, *S. apiculata*, *S. rocheana*, *S. sancta*, *S. macrantha*, *S. aizoon*, *S. burseriana*, *S. cochlearia*, and similar kinds. *Androsace sarmentosa* and *A. lanuginosa* would also do on a sunny ledge. Then there are the various Pinks: *Dianthus cæsius*, *D. plumarius*, *D. arenarius*, and *D. alpinus*. Also *Anemones*, *Acantholimon*, *Aster alpinus*, *Erigeron*, *Campanulas* of many kinds, *Gypsophila*, *Arenaria montana*, *Cerastium*, *Mossy Phloxes*, *Alpine Poppies*, *Veronica Teucrium* var. *dubia*, *Iberis*, *Silene*, *Waldsteinia*, *Tiarella*, *Dicentra*, *Macrotomia*, *Oenothera tauricum*, and many others too numerous to mention. Reference to any good hardy plant catalogue should enable one to make a selection.

**PEAT-LOVING ALPINES (Rock).**—The peat-dust to which you refer is indeed valuable, and may be advantageously employed for a great variety of things, either mixed with sphagnum moss, the old potting material from the Orchid-house, or in conjunction with leaf-mould and loam in equal parts. Supposing you possess a shady dell or low-lying spot in your garden, which you could easily convert into a bed for moisture and peat-loving plants, the mixture of soils named would be excellent. If such a bed could at intervals be saturated with moisture, or was occasionally flooded, you would find it a most congenial home for such Lilies as *L. pardalinum*, *canadense* var. *superbum*, and others. Dwarfier plants suitable are most of the hardy *Cypripediums*, *Trilliums* in variety, *Primula rosea*, *P. Sieboldi* var., *Corydalis nobilis*, *Dentarias*, *Meconopsis Wallichii*, *Mertensias*, and many more. In a somewhat drier spot you could grow the dwarf *Andromedas*, *Kalmias*, *Heaths*, *Menziesia*, *Daphne Cneorum*, *Orochis latifolia*, *O. foliosa*, with *Lilium elegans* in variety, carpeting the surface with the Grecian or Apennine Windflower, or even both.

**Stanley Brook.**—You would have assisted us had you stated whether the plants were unfowered seedlings or older plants. If the former, their vigour may carry them through; if the latter, and growth continues at this season, it is highly probable that the east wind which must come presently will badly damage the tops. Hence a moderate shortening back to firm wood is recommended rather than cutting right down.

**C. A.**—We are pleased to hear the spraying with potassium solution has had a good effect on the Pelargoniums, and we should advise its application on any plants subject to this annoying disease as soon as it makes its appearance. By assiduous attention you may be able to rid your plants of it altogether. As you suggest, the best thing to do with the Violets in the bad condition they are in is to pull them and burn them, starting with fresh young plants next March. The plant is *Farrugium grande*.

**M. M.**—Any bricklayer should be able to make a concrete pond bottom and side, but the most successful pond of that kind is made with bricks and cement. Place the bricks, bottom and sides, in cement mortar; afterwards coat the whole with a half-inch thickness of cement. A pond of this sort will stand for years if a thoroughly firm bottom is made in the first place. In a pond of this sort the water will remain clear, if it is clear when filled. Water plants can also be grown in large Orchid pans and shifted about as required, or a few inches of soil could be put over the bottom and water plants planted in it.

**E. C. A.**—There are several beautiful climbing plants that would suit your purpose, but *Jasminum primulinum* is, we consider, too tender to give you satisfaction. Of Clematises there is a great selection, but *C. montana*, which bears a great profusion of white flowers in May, and *C. Jackmani*, rich purple in summer, cannot be surpassed. The common white Jasmine, whose charming sweet-scented blossoms are borne in summer, and *J. nudiflorum*, with golden blossoms that expand during the dull days of December, will give you a greater choice. There are thus four climbers, all very beautiful and dissimilar, for you to choose from.

**Rock.**—It is by no means an uncommon thing for all *Primulas* of the denticulate group, to which *P. cashmiriana* belongs, to throw the flowering truss early. As the plants are growing in a northern aspect they will not suffer much harm. You would not improve matters by removing the spikes, and the plants are so perfectly hardy that the risk is not great. Another season they may flower later, as much on account of the weather conditions as the age of the plants. This variety of denticulate flowers naturally in March or April, and probably will not be much in advance of its time. Apply a 2-inch mulch of very short manure about the plants, which are moisture-loving and gross feeders.

### THE GREENHOUSE.

**SOLANUM CAPSAICASTRUM (A. A. E.).**—The name of the enclosed spray is *Solanum capsicastrum*, whose only English name is Solanum. It is very easily raised from seed, sown in February, in a temperature of 55° to 60°. As soon as the young plants are large enough they should be potted off singly into small pots. Then, as soon as they begin to grow the top of each plant should be pinched out. By the end of April, or even earlier, the plants will be ready to shift into pots 5 inches in diameter. At the end of May they may be placed out in a frame, giving them plenty of air whenever possible, and exposing them fully in a fortnight. The flowers are small and whitish, and the berries set best if exposed to bright sunshine. When they begin to swell, a little weak liquid manure occasionally will be beneficial. About the end of August the plants must be

given a light position under glass. Equal parts of loam and leaf-mould with a little sand may be used for the first potting, and for the second the proportion should be two parts of the loam to one of the leaf-mould. Many cultivators prefer to propagate their *Solanum* from cuttings, as the plants obtained in this way berry more freely in a small state than seedlings. Cuttings of the young shoots taken at the end of February strike root readily. Old plants may be shortened back a little, and be grown on another season.

**A. E. Woods.**—Not a Fern at all, but the plant often called the Asparagus Fern, whose correct name is *Asparagus plumosus*.

**Nemo.**—Bulbs of *Lilium lancifolium* (speciosum) that have flowered in pots should be repotted soon after the stems die down, say in November or in the first half of December. At the same time, very fine bulbs reach this country from Japan as late as February, and they can be obtained in good dormant condition till at least the middle of March. These imported bulbs should of course be potted as soon after they are received as possible.

**A. E. C.**—Flowering plants of a drooping character to hang in a window are by no means numerous, among the best being two members of the Campanula or Harebell family, viz., *Campanula isophylla* alba, with pure white blossoms; and *C. Mayi*, in which they are of a pleasing shade of light blue. Both these, however, die down in the winter. Ivy-leaved Pelargoniums of a drooping character are also good for the purpose, but in their case they will only bloom during the summer months. Good plants for suspending in a window, but whose most prominent feature is foliage, not flowers, are *Saxifraga sarmentosa* and *Chlorophytum elatum* variegatum, known also as *Phalangium lineare* variegatum.

### KITCHEN GARDEN.

**DISEASED CELERY (Norfolk Park).**—The roots of the specimen sent are, unquestionably, infested badly with a small white mite, which is frequently observed not only in Celery, but in other kitchen garden crops, especially Lettuces. The manure is responsible for this. Strong soot and lime water will quickly eradicate these, and it is a capital plan to mix a little lime and soot with the manure before placing it in the trenches. Manure from the dog-kennels should not be used for kitchen garden crops unless compulsory, and then only after it has laid twelve months and been mixed with lime and soot.

**MANURING POTATOES (Q. Q.).**—If your ground was last year over-manured, the assumption would be that much of the manure remains in the soil practically undigested or insoluble. If that is the case the best course will be to give the ground a dressing of kiln lime. Put down heaps of a bushel to each 1½ rods, and cast just enough soil over each heap to cover it. The lime will soon heat and slack, and then it can be evenly strewn about, and dug in, well mixing it with the soil. The unspent manure or humus will then become quickly usable, and should also be very beneficial as an ingredient in the soil. Failing lime, use soot, but lime is best. If either be used as a dressing, when the Potato plants are well up, and before moulding them, give about them well crushed, 3lb. per rod of sulphate of ammonia. As a substitute for all these things apply, and at once dig in, 10lb. per rod of fish guano.

**Norfolk.**—We think that probably the Seakale is bitter from some cause in the cooking; it may have been hurried too much or not have had sufficient water, or, which is often the cause of bitterness, it may have been too long in the cooking. A little salt in the water should be used. Seakale is sometimes bitter if forced in a very hot, dry place. Slow forcing and ample moisture give the best results.

**Mrs. Wynne.**—Short, well-decayed manure placed in a layer 3 inches deep over the surface of the beds would have a better effect in improving the condition of your Asparagus beds than bone-meal. The manure should be gently forked into the surface of the beds towards the end of March, and a light dusting of nitrate of soda applied at the same time. The action of bone-meal as a fertilizer is slow, and is more suited to fruit trees than to Asparagus.

**F. W.**—The Potato sent is of the now well-known variety King Edward VII. Because of its coloured markings the variety has the merit of being easily distinguished, and that is much more than can be said of scores of white varieties, the tubers of which so greatly resemble each other. We believe the parents of King Edward VII. were the red American, Mr. Breeze, and Sutton's Abundance. The variety is a main crop or late ripener, very prolific, tubers usually longish or kidney-shaped, skins tinged with yellow, and about the buds much blotched with marma. A very fine variety for exhibition, being so distinct and handsome. It is not of the best table quality.

## TREES AND SHRUBS.

**LOW-GROWING HEATHS (A. M. B.).**—The best low-growing hardy Heaths for the purpose are: *Erica ciliaris*, pink, July and August; *E. cinerea*, in variety, different tints, from mid-summer onwards; *E. herbacea* or *carnea*, reddish rose, January and February; *E. mediterranea hybrida*, rosy purple, winter and early spring; *E. Tetralix*, various tints, summer; *E. vagans*, pink, August and September; and *E. vulgaris* (Ling or Heather), of which there are numerous varieties in cultivation. These bloom, as a rule, during the latter part of August, in September and October. The best time to transplant them is from the middle to the end of October.

**MICE EATING PRIVET STEMS (Willard).**—Get a few pounds of dry clay, pound it fine, put it into an old pail, and mix with it as much paraffin as it will well absorb. Also add, dissolved in half a gallon of boiling water, 1lb. of soft soap, then put that into the pail. Still further add an ounce or so of red lead. Mix these ingredients into a paste, then with it coat the stems of the privet, using a large painting brush. Keep the solution well stirred while using it. In all cases where the stems are barked all round, as you seem to intimate some are, we fear they will die, as no artificial coating can replace loss of bark. Those it may be wise to cut down below the barked injury. But you may have to suffer similar trouble later with new growths, and traps should be set to catch and destroy the mice.

**J. B. R.**—We can suggest nothing better for the purpose than young, vigorous plants of the Thorn itself, which will stop up the gaps and in time form an impervious hedge. They would associate with the existing Thorns better than anything else.

**Lingfield.**—There must certainly be some local cause to account for the Rhododendrons dying off in the manner of the specimens sent, and in our opinion it is the annual top-dressing of manure which has done the mischief. If put on in a crude state it would injuriously affect the roots. In common with all subjects whose roots consist mainly of delicate hair-like fibres, Rhododendrons are quickly affected by extremes of any kind, either of drought, of stagnant moisture, or of strong manures. If a top-dressing of any kind is given, by far the best material would be leaf-mould, as not only does this act as a gentle stimulant, but it assists towards keeping the roots cool and moist during the hot, dry weather of summer. We should certainly advise you to discontinue the manure, and then perhaps the trouble will cease.

## FRUIT GARDEN.

**PLANTING AN ORCHARD (E. P. M.).**—If Apple trees on the Paradise stock be planted at 12 feet apart each way, just 302 trees can be planted on an acre of ground. To economise the soil for several years, the intervening space should be planted with Currants, Gooseberries, Raspberries, and Strawberries. Although it may not be necessary to trench all the ground prior to planting, it should be at least deeply dug and be thoroughly cleaned and pulverised. The holes opened for the reception of the trees should be round, and may be from 2½ feet to 3 feet broad and 10 inches deep. The bottom soil may be broken up in each hole several inches in depth, some of the best top soil thrown in and levelled, and the trees carefully planted, doing so rather shallow than deep. If the other soil be planted with bush fruits, it can be forked over and loosened as the planting proceeds. As to the probable profit from an acre of fruit orchard, that is not possible to determine; estimates would be of a haphazard kind, and possibly very misleading, as so much depends upon local conditions, distance from market, and other things.

**NEWLY-PLANTED VINES (S. T. J.).**—Do not now cut back your January-planted Vine-rod. Although so far the Vines have not started growth, the roots may have been active. In any case cutting back the rods just as the sap is about to rise would lead to bleeding where the cuts were made, and loss of strength. Select in each case a strong bud or break about on a level with the plate from which the roof of the vinery springs, on each Vine, and rub out any others

below that may push growth. Also pull out or pinch hard back all shoots above the selected one. That one will thus soon collect all the sap force of the Vine, and should this year become a rod from 10 feet to 12 feet long. Still, next winter such rods should be cut back to a length of about 2 feet only. Keep your Gloire de Lorraine Begonias and Bonvardias now in a rather cool house, where they will rest. The Begonias can be propagated by cuttings in warmth now. The Bonvardias will need shifting into larger pots, and should be stood outdoors on ashes in the summer.

**H. G. G.**—It is recommended by all good fruit-growers that fruit trees should be pruned soon after planting, and not be allowed to make a season's growth before being pruned. Cutting back the shoots restores the balance between root and branch, which has naturally been destroyed by damage to the roots when transplanting, and probable shortening when replanted.

**C. J. Hall.**—We are afraid you can do nothing if your fruit trees are in the open. If they are on walls you might protect them by means of canvas or tiffany, or even fish netting. It is no use rubbing off some of the buds. If anything this would make the others grow all the more quickly. As the situation is so well protected it is probable that even if the blossoms open early they will not be much damaged. Although they are so forward, it is surprising how a spell of cold weather will keep them back.

**A. B., Edinburgh.**—We think you would find the following plan more simple and not so costly as the coping you suggest: Iron hooks, with movable stays, fixed at 18 feet apart, 1½ feet in length; this allows for 6 inches to go into the wall or to be fastened on the top. At the end, or portion farthest from the wall, the ends are curved upwards to hold half-inch iron rods. These run the whole length, and in the suspending bar fixed to wall are holes; on this place an 11-inch-wide matchboard, this to be well tarred and each piece screwed to bar by a nut and bolt. On the bar in front hang double mesh thick nets or thin scrim canvas or tiffany. If the latter is used it should be drawn to certain distances in the daytime. You may, if you wish, use felt, but we prefer boards. These last a long time if well tarred and stored in a dry place when not in use. The boards should have a gentle slope downwards to throw off rains freely. The iron hooks for the stays are permanent when fixed. These should be painted or tarred, and made large enough to ensure that the stay crook at end easily lifts out when not in use.

## ROSE GARDEN.

**ROSES FOR CHALKY SOIL (Wybunbury).**—Six bush Roses: Caroline Testout, Frau Karl Druschki, Marie van Houtte, Ulrich Brunner, Viscountess Folkestone, and Mme. Ravary. Six climbing Roses: Gloire de Dijon, Cheahunt Hybrid, Dorothy Perkins, William Allen Richardson, Climbing Belle Siebrecht, and Mme. Alfred Carrière.

**SEMI-WILD ROSES (W. Seneccall).**—To form a large bed of a semi-wild description the following Roses would be suitable: Flora, rosy flesh; Crimson Rambler; the Dawson Rose; Polyantha grandiflora; Conrad F. Meyer (rugosa hybrid); rugosa Blanc double de Coubert; The Garland, white; Una, large single creamy white flowers; and Fellenberg, rosy crimson. All are strong growers and would soon develop into large free bushes. Good garden Roses to plant in between until they have developed are Grues an Teplitz, Mme. Abel Chatenay, Grace Darling, Caroline Testout, Viscountess Folkestone, Ulrich Brunner, Gustave Regia, La France, and Mrs. John Laing.

**C. W.**—8. Rose Flora McIvor is one of the Pensance Briars, while Leopoldine d'Orleans and Myriamthes Rugs are good climbing kinds. They produce their blossoms in large clusters. In pruning the heads should be well thinned out, at the same time leaving a few of the long and vigorous shoots to their full length, and they will then flower freely.

## MISCELLANEOUS.

**B. T. F.**—The proportion used will to a certain extent depend upon the plants, but in a general way 1oz. per gallon will suit most subjects. Some will stand more, but the better plan is to commence with the lesser quantity and note the effect before increasing it.

**E. B.**—Falling farmyard manure, which is the best thing to dig into poor, light soil, you should save all the vegetable refuse from the kitchen garden, fallen leaves, road scrapings, the refuse of fires, old potting soil, and Mushroom-bed manure, and dig them into the soil. Leave a portion uncropped for a time, and, while it is bare, take the opportunity of digging in any of these materials that can be had. It is not much use applying artificial fertilisers until you have improved the quality of the land. Short, well-decayed manure would be best for the Asparagus

beds, but, falling this, use nitrate of soda. The leaves of Rhododendrons seem to be from a tree that is starved. Probably the soil is poor and light, and the plants suffer from the want of water in summer. Soot is a good and cheap fertiliser.

**XL All.**—The XL All Insecticide would do no harm to the foliage of your greenhouse plants if used according to the directions given. We have used it frequently, and have never known leaves to be damaged by it. We think there can be no doubt that the foliage was damaged, as you think might have been the case, by the mixture of sulphur and tobacco used previously.

**D.**—A reasonable amount of atmospheric moisture is necessary for plant growing, and we should certainly not advise you to concrete the ground underneath the stage. You might take out a little of the soil and replace it by Derbyshire spar, shingle, or any material that will always look clean and neat and yet allow the water to drain away readily. As to any arrangement for carrying away surplus water, you must be guided by the slope of the ground and other matters. Ferns would do very well in a narrow border in front. A border for climbers might be taken out to a depth of 2 feet, 6 inches of rough drainage material, such as broken bricks, being placed in the bottom, and the border then made up with good soil, in which the climbers may be planted.

**ENGLISH AND IRISH LAND MEASURES (D. K.).**—A rod area of English ground is just 80½ square yards, the proper dimensions in feet being 16½ each way. There are 160 such rods or areas in an acre. The measurement of a rod seems rather absurd, as, by splitting feet into halves and yards into quarters, multiplication or division is greatly complicated. Had the width and length of a rod been 18 feet, for instance, the exact superficial area would have been 36 yards, and thus calculation would have been very simple. We here term this rod "area," also as "pole" or "perch." As to the bushel measurement, that differs materially in diverse localities, but generally it is held to be 56lb. Still, it varies according to material measured and locality. The sooner all these old measurements give place to weights the better. We need badly a clean sweep of all these ancient terms in land and goods measurements, as also in money, replacing them with simple, easily understood and universal terms.

**NAMES OF PLANTS.—T. H. Port.**—*Cypripedium nitens*. —**S. J. W.**—The large flower is a form of *Cypripedium harrisi*; the other is *C. venustum*. —**E. M. M.**—1, *Photinia serrulata*; 2, *Tibouchina semidecandra* (*Pteroma macrantha*); 3, *Fuchsia oppositifolia*; 4, *Viburnum Tinus* var. *lucidum*; 5, *Pittosporum Tobira*; 6, *Veronica speciosa*; 7, *Myrtus Ugni*; 8, *Philomela frutescens*; 9, *Eupatorium wisnmanianum*; 10, *Olearia macrodonta*; 11, *Ilex latifolia*; 12, *Fraxinus lusitanica* (Portugal Laurel). Those with an asterisk are tender, but the rest might be grown in sheltered positions. —**Bridget Pengelly.**—1, *Berberis vulgaris*; 2, *Taxus baccata* (Yew); 3, *Thymus vulgaris* (Garden Thyme); 4, *Ligustrum vulgare* (Privet); *Jasminum nudiflorum*. —**M. S. Oxley Parker.**—*Thuya dolabrata* variegata. —**R. H. C.**—1, *Polypodium glaucophyllum*; 2, apparently *Polypodium aureum*; 3, *Polystichum aculeatum* angulare; 4, *Lastrea aristata* variegata; 5, *Doodia aspera* multifida; 6, *Echites picta*; 7, *Cymbidium tracyanum* (pale form); 8, *Lycaste cruenta*. —**T. L.**—1, *Erythronium pulchellum*; 2, *Ligustrum ovalifolium* foliis aureis; 3, *Pieris* (*Andromeda*) *japonica*; 4, *Pieris* (*Andromeda*) *japonica* variegata; 5, *Elaeagnus pungens* variegata; 6, *Ligustrum japonicum* coriaceum; 7, *Raphiolepis japonica*; 8, *Osmanthus ilicifolius* variegatus; 9, *Anacuba japonica* viridis; 10, *Olearia Haastii*. —**Acalypha.**—1, *Pteris serrulata* cristata major; 2, *Pteris serrulata*; 3, *Pteris serrulata* cristata; 4, *Asparagus plumosus nanus*; 5, *Begonia manicata*; 6, *Abutilon Souvenir de Bonn*; 7, *Geum exoniensis*; 8, *Acalypha tricolor*; 9, *Parlagonium crispum*. —**Query.**—1, *Mitrostigma axillaris*, better known in gardens as *Gardenia citriflora*; 2, *Begonia fuchsoides*; 3, *Begonia President de Bourelles*; 4, *Begonia haageana*.

**NAMES OF FRUIT.**—**Fish.**—The Apples are: Tall, conical fruit, Adam's Pearmain; flat fruit, Ashmead's Kernel.

## SOCIETIES.

## THE HORTICULTURAL CLUB.

## ANNUAL MEETING AND DINNER.

THE annual dinner of this club took place on Tuesday, the 13th inst., at the Hotel Windsor, under the presidency of Sir John Llewellyn, Bart., when about eighty members and guests, including many ladies, were present, and an extremely pleasant evening was passed. The tables, thanks to the kindness of Messrs. Vetch, were beautifully decorated with flowers and groups of foliage plants, and the hon. secretary (Mr. E. T. Cook) had arranged a capital programme of vocal music, admirably rendered by the Quavers Vocal Quartette, under the direction of Mr. Wilfred Kearton of St. George's Chapel, Windsor. Mr. Charles T. Drury contributed, as usual, one of his original readings, this time on the "Tatar Disease," which was well received. After the usual loyal toast of "The Royal Horticultural Society" (whose annual meeting had been held that day with a splendid record of progress), to which Mr. Paul alluded with the hope that such progress would be maintained, Mr. W. A. Biney responded in a humorous speech on behalf of the council. Sir John Llewellyn proposed the toast of "The Horticultural Club," referring particularly to its practical contributions to horticultural knowledge in the shape of valuable papers given by its members and guests, many of which subsequently appeared in the

Journal of the Royal Horticultural Society, of which the club really constitutes the social centre. Mr. George Monro responded in appropriate terms. Mr. Harry J. Veitch proposed the toast of "The Chairman," which was drunk with musical honours, as was the subsequent toast of "The Secretary." "The Visitors" toast as proposed by Mr. Jefferies was framed by him with particular reference to the ladies, and was responded to by Dr. Henry and the Rev. C. J. Smith, M.A. Dr. Henry speaking on behalf of the fair sex, and the Rev. C. J. Smith dwelling eloquently on the delights of gardening as encouraged by the club, and the consequent pleasure of being a guest among such sympathetic spirits.

The toast list concluded, the Quavers Quartette gave several songs and duets, winding up appropriately with the delightful "Good Night, Beloved."

#### NATIONAL CHRYSANTHEMUM SOCIETY.

THE executive committee of this society held a meeting on Monday, the 12th inst., at Carr's Restaurant, Strand, when Mr. Thomas Bevan occupied the chair, being supported by an excellent attendance of members. Minutes and various routine matters having been disposed of, a long discussion arose on certain financial questions relating to the future of the society. A motion was then carried that the secretary's salary should again be fixed at the rate of £100 per annum. The next business on the agenda was the election of the various gentlemen to fill the vacancies on the committees. Those for the floral committee were first dealt with. This being taken by ballot, necessitated the nomination of scrutineers, and Messrs. Foster, Ingamells, Kybert, and Moorman were called upon to act in that capacity. As a result the under-mentioned gentlemen were elected to fill the places of the one-third retiring by rotation, viz., Mr. J. B. Riding, Mr. A. W. Seabrook, Mr. C. J. Ellis, Mr. W. Harrison, Mr. E. F. Hawes, Mr. W. Wells, and Mr. H. J. Jones.

A sub-committee consisting of Messrs. D. B. Crane, C. H. Curtis, and Harman Payne was appointed to compile the necessary list of last season's novelties for inclusion in the schedule now in preparation. The new financial committee consists of Messrs. Ingamells, Hawes, and Moorman. For the schedule sub-committee the following names were declared to have received the highest number of votes: Messrs. John Green; W. Howe, P. A. Cragg, Ingamells, Oliver, G. Prickett, Crane, Hawes, and Moorman. In respect of the publication committee, Mr. C. H. Curtis gave an informal report of the work that had been under consideration, and promised a formal one by next meeting. The election of new members brought a somewhat lengthy meeting to a close.

#### SOUTHAMPTON ROYAL HORTICULTURAL SOCIETY.

THE annual general meeting of the above society was held recently. The statement of accounts presented showed a total income for the past year (receipts and assets) of £707 11s. 4d., the total expenditure and liabilities amounting to £729 1s. 9d., leaving a deficit of £21 18s. 1d. on the year's working. Fortunately the society has a small reserve fund of £75, and material valued at over £50, so that the society is able to show a credit balance of £103 8s. 8d. One hundred and sixteen new subscribers were added to the society during the year, but unfortunately no less than eighty-six of the former members had to be struck off through deaths, withdrawals, &c. An urgent appeal is made for increased and additional subscriptions. This year's Rose show is to be held in the County Cricket Ground, and on one day only—June 27. In the "Notes on the Exhibitions" accompanying the report a hope is expressed that this will induce the trade growers to assist the show more largely than on former occasions. The Carnation show is to be held on the pier as usual, and the autumn show at the Artillery Drill Hall. After the report and statement of accounts had been unanimously received and adopted, the election of officers was proceeded with, Sir Samuel Montagu, Bart., being again elected president, and several new vice-presidents were added to the list. The chairman, Mr. H. J. Blakeway, and the other retiring members of the council were all re-elected, including the veteran secretary, Mr. C. S. Fuldge, who enters upon his thirty-fourth year of service, and who has been connected with the management for over forty years.

#### CARDIFF GARDENERS' ASSOCIATION.

A MEETING took place on Tuesday, the 6th inst., at the Sandringham Hotel, when Mr. E. Mayne presided. Mr. Toy, foreman, Cardiff Castle Gardens, gave a most interesting lecture on "Melons," dealing with his subject in detail from the time that seed should be sown for early work to the end of the late season. The hon. secretary opened the discussion, and expressed the congratulations of the members to Mr. Toy in coming forward with such an able lecture, inasmuch as it was his first attempt before an assembly. A hearty vote of thanks was accorded Mr. Toy, who briefly responded. For a pan of Orchid *Cologne cristata*, Mr. R. Mayne won the prize of 5s. offered by Mr. C. Lewis, Penarth.

#### PROFESSIONAL GARDENERS' FRIENDLY BENEFIT SOCIETY.

IN submitting the thirty-ninth annual report and statement of accounts, the committee feel there is cause for great satisfaction in the continued improvement in the financial position of the society. The total income for the year has been £195 18s. 11d., and the total expenditure £138, which leaves a profit on the year's account of £57 18s. 11d., which added to the total funds at the end of 1904 of £1,290 9s. 3d., makes the total worth of the society at present £1,348 8s. 2d., representing a value to each member of £10 15s. 6d., a gain of £1 per member during the

year. The number of members at the present time is 122. Liberal support continues to be given to the society by its honorary members, for which the committee desire to tender their hearty thanks. The committee deeply regret the loss by death of Mr. Robert Featherstone, who always took a great and unselfish interest in the society, and held one office or other almost continuously since its formation, and for some years previous to his death was senior trustee. At the special meeting held on December 5th, Mr. James Inman was appointed a trustee in his place. At the same meeting, after a long and interesting discussion, it was resolved to adopt the committee's recommendation to make application to become a branch of the Grand United Order of Oddfellows.

The dinner and gathering last year were a great success, and the committee hope that again this year all who possibly can will make an effort to be present on February 14th. It is very satisfactory to note that members generally are now taking a greater interest in the affairs of the society, but it is thought that much more might be done by many in pointing out to eligible young men its advantages, and that it is a duty they owe to themselves, their wives and families, and to their fellow-men, to join such a society.

#### CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

A good assembly of members listened with great interest to the lecture of Mr. H. O. Etherington, The Culvers Nursery, Carshalton, who at the last meeting expounded the subject of "Water in Relation to Plant Life." Throughout his discourse the members exhibited the keenest interest in the subject, and after the usual discussion, were unanimous in passing a very hearty vote of thanks to Mr. Etherington. Mr. A. Edwards, Ambleside Gardens, Addiscombe, exhibited some very good specimens of Onion Rousham Park Hero.

#### CROYDON HORTICULTURAL MUTUAL IMPROVEMENT SOCIETY.

THERE were close upon a hundred members at the Greyhound on the occasion of the sixth annual dinner of the Croydon and District Horticultural Mutual Improvement Society, which function invariably proves one of the most enjoyable of its kind. The horticulturists assembled proved true to tradition, and decorated the tables in an extremely lavish fashion with practically every flower now in season. The feature of the display was a fine group of Orchids, which were greatly admired. Mr. J. J. Reid, the president, occupied the chair, while Mr. G. J. Ingram was vice-chairman. The vice-chairman submitted the toast of the evening, "The Society." There were no two opinions as to the utility of mutual improvement societies, not only between gardener and gardener, but in other professions. They encouraged an interchange of ideas, mutual fellowship, and friendly and keen competition, which brought out the mental qualities and capabilities of the members. Then they had a secretary who was most energetic, and who worked thoroughly well in their interests. Last, but by no means least, they possessed a very prudent treasurer. Mr. Bosher on rising to respond met with a cordial reception. Mr. Bosson gave the toast of "Kindred Societies and the Visitors," and spoke of the good feeling which prevailed between that and other societies.

#### CRAWLEY & DISTRICT GARDENERS' ASSOCIATION.

A CAPITAL meeting was held under the auspices of the Crawley and District Gardeners' Mutual Improvement Association on the 13th inst., when Mr. William Shepherd, gardener to H. Hobson Finch, Esq., Goffs Hill, Crawley, delivered a most interesting and instructive paper on "Phenomena in the Life of Plants." The speaker having given a good deal of time to the study of agricultural chemistry, he was able to impart useful knowledge to the members present. At the close many questions were forthcoming, and a good discussion followed, in which several members took part and more useful information was obtained.

#### ABERDEEN CHRYSANTHEMUM SOCIETY.

THE annual general business meeting of the Aberdeen Chrysanthemum Society was held recently, Mr. James Eslemont (chairman) presiding. Mr. M. H. Sinclair, secretary and treasurer, submitted the annual financial statement, which showed the very satisfactory balance of £166 10s. in favour of the society. The report was unanimously approved of, and the following office-bearers were elected: Hon. president, Lord Provost Lyon; chairman, Mr. James Eslemont, Langley; vice-president, Mr. A. Kynoch, Clifton Road; secretary and treasurer, Mr. M. H. Sinclair, 166A, Union Street; together with a working committee consisting of twenty members. It was agreed that next year's show be held on November 23 and 24.

#### EAST ANGLIAN HORTICULTURAL CLUB.

THERE was a very large gathering of members at the February meeting of this club held on the 14th inst., at the Shirehall Hotel, Norwich. The evening was devoted chiefly to the reading of two papers received in an Essay Competition upon "The Outdoor Cultivation of the Rose," which was confined to single-handed and amateur gardeners. During the lengthy discussion which followed, the subject of adding stiff clay to light soils for the purpose of making it more retentive seemed to be one about which there was much diversity of opinion. Mr. C. Matthews and Mr. E. Lovett won the Essay prizes in order named. The exhibition tables were well filled, and contained some splendid examples of bulbs in pots. The

Hyacinths, Narcissus, and Tulips of Mr. F. Williams, gardener to Louis Tillet, Esq., M.P., Norwich, were exceptionally good. Mr. W. Shoemith, gardener to F. W. Harmer, Esq., besides good flowers, had well-kept Apples and Pears, both kitchen and dessert. Mr. R. Abel, gardener to Mrs. Curi, Ipswich Road, Norwich, staged a splendid exhibit of Persian Cyclamens. Mr. T. B. Field of Ashwellthorpe brought some grand fruits of that old variety of kitchen Apple, Striped Beeding, which George Lindley found growing in a garden near Norwich in 1794. Its usefulness may be gathered from the fact that it is in season from October to May, is a splendid keeper, and excellent for baking. Mr. W. L. Wallis, secretary, had quite a host of new members for nomination.

**Birmingham Botanical and Horticultural Society.**—Owing to the increased interest now shown in the pursuit of gardening in the Midland Counties, the Birmingham Botanical and Horticultural Society have considered a proposal to hold monthly flower shows in the Botanical Gardens, Edgbaston, during the summer months, with a view to further stimulating the love for the cultivation of flowers. The Daffodil and Auricula shows, held at the gardens in April, the Carnation show in August, and the exhibition of border Chrysanthemums and other autumn flowers are well supported by exhibitors and visitors. It is now proposed, as an experiment, to hold two extra shows during the coming summer, one in June and the other in July. It is proposed to award medals to meritorious exhibits, and certificates to individual plants, &c., of superior excellence.

## OBITUARY.

### JOHN FORREST.

WE regret to have to record the death, on the 15th inst., of Mr. John Forrest, late head gardener to the Right Hon. the Earl of Aberdeen, Lord-Lieutenant of Ireland, at Haddo House, Aberdeenshire. It will be remembered that we published a notice of the retirement of Mr. Forrest from Haddo House only in June of last year, when he was entertained by Lord and Lady Aberdeen, and presented with several valuable gifts by his employers and other friends. At that time we gave details of Mr. Forrest's gardening career, and it is unnecessary to recapitulate these now, but it may be said that Mr. Forrest, who had for some time been foreman at Haddo House before entering the service of the late Mr. Thompson of Banchory House, returned to Haddo House as head gardener as far back as 1871, and was for nearly forty years in the service of the Aberdeen family. After his retirement Mr. Forrest went to live at Culter, and his death took place at Craighle there very suddenly. Mr. Forrest was held in the highest respect by everyone.

## TRADE NOTE.

### SUTTON'S FARMERS' YEAR-BOOK.

MESSRS. SUTTON AND SONS' Farmers' Year-book for the current season announces that the partners have determined to celebrate the centenary of their event in a characteristic manner. Instead of treating the centenary as a personal question, they have resolved to do two things in the interests of farmers—to make a substantial reduction in the prices of their standard stocks of agricultural seeds, and to give to each buyer a guarantee as to analytical purity and germination. This guarantee extends also to Clovers and Grasses. The Farmers' Year-book contains a very useful calendar, and the work is illustrated with numerous photographs of remarkable crops. The regular customers of the firm will receive this publication by an early post, but others who are engaged in agriculture will consult their own interests by applying to the publishers at Reading for a copy.

### GARDENING APPOINTMENT.

MR. THOMAS ROBINSON, formerly head gardener and bailiff to Sir C. W. A. Oakley, Bart., Frittenden House, Kent, has been appointed head gardener to E. C. Bennets, Esq., Thornby Hall, Northampton.

RETIREMENT.—Mr. Henry Wilson, for the last eighteen years head gardener to F. A. Smith, Esq., Cole Orton Hall, Ashby-de-la-Zouch, has retired, and is succeeded by his son, Mr. Henry Wilson.

\* \* The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 6d.

# THE GARDEN.

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## GARDEN PEAS.

**S**TRENUOUS efforts should be put forth to prolong the season of Green Peas to as late a date as possible, for good fresh Green Peas are welcome in every household. And with the improvement which has taken place during recent years in early, mid-season, and late varieties, little difficulty, providing a proper system is practised, need be experienced. It is not every variety, however, that will succeed well in all parts of the country, as some kinds which do remarkably well on a light porous soil, fail lamentably on that of a stiff, cold, retentive nature.

There are few vegetables which differ so much constitutionally as the various varieties of Peas, and those only should be grown to any extent which by experience have proved to be best suited for one's own district. Exceptions, however, can be made even with these, as there are one or two standard varieties that seldom fail, and warrant inclusion in every collection.

### CULTIVATION.

As is generally known, the garden Pea requires a well-drained, deeply-trenched, and enriched soil, especially so for late summer and autumn supplies. Anyone may be fairly successful in procuring good crops with very little trouble, for about a month, which generally means the last fortnight in June and the first in July; but it is from then onwards that even the professional kitchen gardener finds it difficult to keep up an unbroken supply until late, unless every care in the preparation of the land and selection of varieties is well thought out. The ground should have been well manured and deeply tilled during the winter or early spring months, and the seed should be sown in drills thinly, allowing a good distance between the rows until the first week in April; after that time the method of sowing them in well-prepared trenches, excavated and filled in much the same way as for Celery, cannot be too strongly recommended. And this applies to every kind of soil and locality. In every case the bottom of the trench should be well broken up before placing in any manure, which should be in a half-rotten condition.

### OVERCROWDING.

This is unquestionably one of the most serious mistakes generally made in relation to Pea culture. Large-growing marrowfat Peas should be sown in double lines in the trench or placed at a regular distance of 3 inches apart, removing every other one when about 3 inches in height, and in the case of very strong growers from 10 inches to 12 inches between the plants is none too much. It is well, especially for late Peas, to isolate the rows as much as possible, and not plant them in breaks, as is too frequently done. When this practice is followed the whole of the ground can be kept cropped, and much heavier yields of Peas will be the result.

### WATERING.

Heavy drenchings should be given during spells of dry weather, and liquid manure from the farmyard well diluted is the best stimulant we know of for Peas. Spraying over the growths with clean water in the evening after very hot days is very beneficial, and to prevent attacks of mildew the foliage should be well dusted with flowers of sulphur during the early morning.

### STOPPING.

This should be resorted to with very late sowings which are expected to give returns during October. Immediately a fair number of pods are set the points of the growths should be taken out, which will induce them to swell rapidly. Birds have a particular liking for late Peas, the tits being most troublesome, and the only successful method we know of protecting them is by using small-mesh garden netting, which must be made quite secure over the rows.

### VARIETIES TO GROW.

In mentioning what we believe to be among the best, we do not for one moment pretend to name those only which are worthy of cultivation, or that will succeed best in every county, but simply those which we know to be of exceptional merit and which seldom fail when properly grown; quality in the Pea is in our opinion one, if not the most, essential point. Each one we mention may be trusted in this respect. The white or round seeded varieties are now hardly worth growing, as they have been superseded in quality and productiveness, and their earliness is so slight

that it is not worth considering. Carter's Early Morn, Sutton's Reading Giant, and Edwin Beckett can each safely be grown when true to name. All are of strong growth and of the highest quality, and all attain a height of from 4 feet to 5 feet when well grown, and by sowing early may be relied upon to come in the first week in June.

### DWARF VARIETIES.

We are not in favour of very dwarf varieties, but we made rather an extensive trial last season, and Little Marvel proved to be the best. It attains a height of about 18 inches, and is literally covered with well-filled pods of the best flavour. Carter's Daisy is a variety well known, and should be included in every collection. When highly cultivated it attains a height of from 3 feet to 3 feet 6 inches. It is of vigorous growth, good constitution, succeeds on almost any soil, is very prolific, and of excellent flavour. Duke of Albany, height about 5 feet, is one of the best second earlies and seldom fails. Alderman, one of the best varieties ever raised, seldom fails to give satisfaction; at its best from the middle of July till the end of August. The seed should be sown thinly; a fine exhibition variety. Quite Content (Carter's), a new variety, should be grown by all. This is the result of a cross between Alderman and Edwin Beckett, and after being thoroughly tested, is being sent out under the above name.

### LATE VARIETIES.

As late varieties, Autocrat and Webb's Masterpiece, the latter being an improved form of the first named, are unsurpassed by any with which we are acquainted. These do remarkably well in any soil or position, seldom mildew, and are great bearers. The Gladstone is a good late Pea of fine appearance, though not of first-rate quality; a large percentage of the plants frequently have a nasty habit of dying off just as they are coming into flower. As an exhibition variety during September it is generally liked. Old Ne Plus Ultra is still one of the best flavoured, if not the best, for late use, but the pods are small and generally take mildew badly, a matter which detracts from its value considerably. Other good Peas are Gradus, Thomas Laxton, Sutton's Peerless Marrowfat, and Duke of Albany.



## PRIZES FOR GARDENERS. MARCH.

### HOW TO CROP A SMALL KITCHEN GARDEN PROFITABLY.

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA  
are offered for the best essays upon  
this subject.

By a small garden is meant one of a size which the owner himself may work, or where one man only is kept, with possibly occasional help—about an acre or less in extent. Few are aware of the large returns which may be obtained from such a garden as this when worked on the principle of intensive culture and a proper rotation of crops is carried out. From frequent enquiries made by the owners of such gardens we are persuaded that information on this subject would be helpful to many readers of *THE GARDEN*. The information we want is not an elaborate treatise, but a concise and informing article giving plain and precise directions as to the best way of treating the land, time for sowing, planting, thinning, &c. Give the names of the best sorts of vegetables, and the time they are in season. Give instructions how to grow Cucumbers and Melons in cold frames, and name sorts.

The essay (limited to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of *THE GARDEN*, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than March 31. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of *THE GARDEN* will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## PRIZES OPEN TO ALL.

### WALL GARDENS.

#### AWARDS IN THE JANUARY COMPETITION.

The first prize of four guineas is awarded to Mr. W. G. Howarth, Lowood, Hindhead, Haslemere.

The second of two guineas to Mr. Maurice Pritchard, Christchurch, Hants.

The third of one guinea to Mr. Jenkins, Hampton Hill, Middlesex.

The fourth of half-a-guinea to Mr. G. B. Mallett, Riverview, Orchard Road, Colchester.

Very highly commended are Miss L. S. Bidwell, Melbourn Road, Royston, Herts; Miss Margery Hodgson, Hoe Benham, Newbury; James Baxter, Goeddinog Gardens, Llanfairfechan; H. Tomlin, Tower Hill House Gardens, Kingsclere, near Newbury, Bucks; J. Comber, The Gardens, Nymans, Crawley, Sussex; H. Forder, Ruthin Castle Gardens, Ruthin, North Wales; Miss Molly Read, Cadbyrie, Castle Bar, Ealing, W.; M. Frances J. Gibson, The White House, Aldershot; Vaughan Hart, Woodside, Howth, Dublin; C. W. Caulfield, Bridgen House, Park Crescent, Erith, Kent; Thomas Smith, Walmgate Gardens, Louth, Lincs; Miss Bailey, Ballycumber, King's County; Joseph Meade, Old Connaught, Bray, County Dublin; Richard Chubb, The Gardens, Howbury Hall, Bedford; Emma E. St. Paul, The Willows, Ripon, Yorks; Walter H. Aggett, 70, St. James's Road,

Bermondsey, S.E.; J. Pounsett, Naunton Park Terrace, Cheltenham, Glos; D. Lewis, Totley Hall Gardens, Sheffield; C. M. Dixon, Winchelsea Lodge, Blackheath Park, S.E.; G. H. Webster, Oak Cottage, Woolton, near Liverpool; William Hamilton, Shipley Hall Gardens, Derby; H. J. Marshall, The Beehive, Christchurch, Hants; J. E. Alan Gibbs, The Croft, Dinas Powis, Glamorgan; Miss Edith Farrant, Huxham Rectory, near Exeter; Charles E. Brown, Moorlands, Middle Road, Bournemouth; J. Stormonth, Kirkbride, Carlisle; Miss G. M. Hallows, Worton Hall, Isleworth.

We regarded the offering of prizes for wall gardens as somewhat of an experiment, as this phase of gardening is still in its infancy, in spite of the joy it brings to those who delight in it. But, happily, the competition was not only very severe, but the papers were so meritorious that it was with the utmost difficulty we could award the prizes, a few points only separating the many competitors. In one or two instances the competitors had misunderstood the questions, although we thought they were clearly expressed; one competitor included fruit trees for walls. We hope this competition will kindle a general love for this very beautiful phase of flower gardening.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

March 6.—Royal Horticultural Society's Meeting; National Amateur Gardeners' Association's Meeting.

March 7.—Sheffield Horticultural Society's Meeting; Lewes Horticultural Society's Meeting.

March 12.—Annual Meeting of the United Horticultural Provident Society.

**National Auricula and Primula Society (Southern Section).**—The twenty-ninth annual report for 1905 states that during the year there has been an increase of twelve new members, bringing the number up to ninety-one, the largest membership yet attained by the society. It is to be hoped that every effort will be made by members to secure a further accession during the present season, bringing the number up to at least the hundred. The hon. secretary, Mr. T. E. Henwood, 16, Hamilton Road, Reading, will be pleased to send a report and particulars of the society to all who may desire to join it. Attention is called to the schedule, in which a few alterations have been made. The class for fifty plants has been eliminated, and in its place a class for twenty-four show Auriculas, and one for twenty-four alpine Auriculas, have been added. The alpine Auricula seed, kindly given by Mr. James Douglas to the members, is much appreciated, and doubtless considerably adds to the keen interest now taken in this beautiful flower.

**A Daffodil Annual.**—In *THE GARDEN* of February 17, in the course of some most interesting Daffodil notes, Mr. A. R. Goodwin speaks of a proposal which has been made to issue annually a publication, after the spring shows, which would contain accounts of the Daffodil exhibits, varieties which received awards, cultural notes, &c. He says it is to be hoped that readers of *THE GARDEN* will express their approval of the project. I take this opportunity of saying that I agree with the suggestion most heartily. I have often wished that some paper concerning Daffodils was to be had; and I feel certain that a publication containing reports of the Daffodil shows, descriptions of all the new flowers exhibited which were of particular merit or interest, and illustrations from photographs of the leading novelties, would be of the most intense interest to all enthusiasts, more especially to those, like myself, whom circumstances prevent

from being present at the exhibitions. Growers in different localities, also, might contribute their experience of various details of culture, the behaviour of various varieties in different soils, &c. On the subject of cross fertilising, for instance, we should be glad to have a great deal more light, and on many other points the exchange of experience would be most helpful. There can be no doubt that by means of such a paper a great deal might be done to advance the love of the flower and promote its successful culture; and I for one most sincerely hope soon to hear that the proposal to publish a Daffodil Annual has been successfully carried out.—G. L. WILSON, *Knowlhead, Broughshane, County Antrim.*

**Sugar Beet.**—The high price of sugar in 1904, and the exclusion of bounty-fed sugar from the English market, have had the effect of bringing into prominence again the question which has for many years been much discussed of manufacturing sugar in this country from home-grown sugar beet. If the industry were started, it is almost certain that the attempt would be made in the Eastern Counties, where the climatic conditions are particularly favourable for an enterprise of this kind. Small plots of sugar beet have been grown from time to time in Essex by farmers interested in the question, and satisfactory crops have, for the most part, been obtained. Experiments were conducted by the Essex Educational Committee in order to find the yield and quality of the beet grown on typical soils, and to compare some varieties. The results show that beets have been grown equal to, and in some cases better in quality than, those produced in sugar-making countries. This is obviously the first thing to be investigated before the idea of sugar-making can be entertained; but it does not follow that, even when this has been established beyond any possibility of doubt, the undertaking is one which would necessarily be a commercial success. The business side of the question—the cost of production, the cost, under the local conditions prevailing in the Eastern Counties, of working a factory—and a host of similar points need careful and experienced consideration.—*Report of Experiments on Sugar Beet.*

### New race of hybrid Narcissus.

The current number of the Paris *Revue Horticole* contains an interesting account from the pen of M. Motet, head gardener to M. Philippe de Vilmorin at his interesting garden and trial-grounds at Verrières, of a new race of hybrid Narcissus, said to be of Dutch origin, the chief characteristic of which seems to be extreme vigour of constitution. Some of the flower-stems rise to over 3 feet in height, are of great hardness, and have the power of standing without injury very low temperatures, which greatly injure, if not destroy, the flowers of their parents. Twelve varieties are described by name, and woodcuts given of the two finest. This race is from a cross between N. Tazetta and N. poetarum, to be known as N. Poetaz. 1. Alsace.—White, with lemon yellow cup, edged with orange, each stem bearing two to three large flowers. 2. Elvira.—White, with yellow cup, margined with orange; three to five flowers. 3. Idéal.—White, with orange cup; four to five large flowers. 4. Irène.—Isabella yellow, orange cup, very distinct shade; four to six flowers. 5. Louise.—White, deep yellow cup, wrinkled, frilled, and tall flower-stems; three to five large flowers. 6. Jaune à Merveille.—Light yellow, with cup of a deeper shade; flower-stems bearing four to five flowers. 7. Klondyke (plate 38, *Revue Horticole*, February 16, page 92).—Light yellow, orange cup; five to six large flowers; the finest of the yellows. 8. Robin.—White, with yellow cup; two to three flowers on each stem. 9. Stanley.—White, with yellow cup; stems bear five to six flowers. 10. Sunset.—Sulphur yellow, deep orange cup; five to six large flowers. 11. Von Schiller.—White, yellow cup; four to





BUNYARD'S ALLINGTON PIPPIN.

five large flowers. 12. Triumph (plate 38, *Revue Horticole*, February 16, as above).—White, with yellow cup, stout flower-stems exceeding 20 inches in height, and bearing three to four flowers, which are 6 centimètres to 7 centimètres in diameter; the finest of the whites.

**The Mezereon.**—*Daphnes* are certainly worthy of the best attention we can give them. The oldest, the best known, and most deservedly popular is *D. Mezereum*. To see this at its best, there should be a group of from six to twenty plants. It is lovely alone, but gains in effect if interspersed with the Partridge Berry (*Gaultheria*), which hides the ground, has ample leafage, and is altogether a charming foil to the profusely-bloomed but leafless bushes of *Mezereum*. A trio of choice kinds exists in *D. Genkwa*, *blagayana*, and *Cneorum*. They need a little special preparation and some extra care, but such trouble is well repaid. The culture is simplified, and good results are more likely to follow, if the plan is adopted of growing things like these in beds and borders, because the soil can be made up to their liking, and there is no risk of other root-robbers coming in and devouring what was not intended for them. We have never before seen *D. Mezereum* so full of flower

remember that I ever heard of a double specimen being found in England. I knew that Mr. Barr had offered a reward for such discovery, but I think I am correct in saying that those which I gave him were the first he ever had. But to come to the point in question, viz., the beginning and continuance of doubling, I shall, with due deference to high authority, and subject to correction, say that I do not believe that high cultivation will double a genuinely wild specimen; on the contrary, the plant seems rather to resent such treatment. It prefers the natural grass habitat. My own belief is that the double is a chance seedling from a single flower. My reason is this: I have several times found a solitary double flower in the midst of hundreds of single. If quite a small and young plant, the bulb is solitary, as it probably would be the first year of flowering; if a larger flower, the original bulb is surrounded by offsets, and all these offsets produce double flowers. Occasionally these flowers are nearly green instead of yellow, and get their right colour the following season; and most, if not all, of

flowers. I say "believe," because I am not certain. I, however, will give my reasons. When I have found an old clump of doubles, I have not infrequently found round about it smaller and younger patches, such as might have sprung from pods which had fallen from the parent source, and all these have been double. This has run to greater length than I had intended, but I have not quite done. I should wish to refer to the trial made with single Lent Lilies from different counties. I tried many, and under specially favourable conditions. The ground in which I planted them was a moist grass orchard—one in which I had found most of my doubles. In it I had also found semi-double *N. incomparabilis*, and in the adjoining hedges sweet white Violets, both single and double. There appeared to be an aptitude for doubling in that special spot; no doubling, however, took place in the case of the trial bulbs.

So far the increase by seed from the double flowers remains without absolute proof; but last season, from a patch of five double flowers, I had five fully-ripe pods. I placed a few of the seeds in good and younger hands, and I have at present not less than thirty healthy seedlings as the result of my own sowing. What they may turn out remains to be seen. The same bulbs are again showing colour, and if they ripen seed the experiment will be repeated. My soil is retentive of moisture, and contains lime and disintegrated new red sandstone.

T. H. ARCHER-HIND.

*Coombe Fishacre House, South Devon.*



THE MEZEREON (*DAPHNE MEZEREUM*) IN FLOWER. (The photograph was taken in January.)

as in the case of the plants illustrated. The stiff leafless shoots were simply spires of blossom and a charming sight outdoors in January.

## DOUBLING LENT LILIES.

**I**N the year 1885 the Royal Horticultural Society appointed a committee to enquire into the doubling of *Narcissus* flowers. I was not able to attend, neither have I heard what further progress has been made on the subject since that time; but having taken a special interest as regards our native *Narcissus* (*Pseudo-narcissus*), I propose to state my own conclusions with a view to eliciting the opinions of others who may have been doing similar work. First, let me say that many years ago I found double Lent Lilies in Devonshire; once I found a solitary specimen bearing two double flowers on one stalk. It had one double flower next year, and died before another season in my garden—but this by the way. Up to the time I speak of I cannot

the flowers are trumpet-double at first and Rose-double in after seasons.

It is scarcely necessary to discuss reported instances of a single Lent Lily producing double *Telamonius*, &c., as the result of the experiment; but when a double Lent Lily reverts to its single form (which it sometimes does), and happens to become the subject of the experiment, such a plant, under suitable conditions, again becomes double, and may lead the experimentalist to suppose he has really converted a genuine single into a double. I will give an instance: Once I sent bulbs of Rose-double plants to my late great friend and most accurate botanist in Cheshire. In his climate and soil they came up absolutely single. I said, "Send them back." They at once reverted to full double in my soil and climate. I returned the same bulbs again, accompanied with some of my soil, and they came up double once more; what they are now I do not know. When once we start with the double flower the increase is not slow—first, all the offsets are double, and I believe the seed also produces double

## COLOURED PLATE.

PLATE 1293.

APPLE ALLINGTON PIPPIN.

**W**HEN Mr. Thomas Laxton had a sale, before the business was removed to Bedford, the nursery contained a number of seedling fruits. Some of the Apples passed into the hands of Messrs. W. and J. Brown of Stamford, and they exhibited a dish of Allingtons before the fruit committee of the Royal Horticultural Society in November, 1894, under the name of South Lincoln Pippin. This was awarded a first-class certificate, and the stock was purchased by Messrs. George Bunyard and Co. of the Royal Nurseries, Maidstone. As there were already other Apples identified with the name of Lincolnshire, they renamed it Allington Pippin, after the parish where their fruit nurseries are situated. Year by year it has increased in popularity because of its free bearing, healthy growth, and fine flavour. No parentage has been traced, but it is thought to be a cross between Golden Reinette and Cox's Orange Pippin. It has the rich flavour of Golden Reinette without the sweetness of Cox's Orange Pippin, and is by some preferred to the latter on that account. At some exhibitions it has taken the prizes both as the best dessert Apple and as the best flavoured at the time it was set up. In growth it is larger in all its parts than Cox's, and resembles its parent closely. It can be recommended for every private garden, and the market growers are planting it in thousands; it must ultimately oust the old King of Pippins, as its season is from November till February.



## EARLY SWEET PEAS.

**A**LL writers on the Sweet Pea unite in praise of it, and they make no mistake. There is, however, at least one respect in which it could be better than it is. I refer to the fact that it does not begin to bloom so early as one would like it to. Although, compared with most other flowers, the Sweet Pea has a very long flowering season, yet, under ordinary methods of culture, it is quite the exception to have flowers before June.

Seeds can be sown at almost any time during autumn, and those planted in December and January give excellent results, the flowers from those sown during the latter month opening only a comparatively short time after those sown three months earlier. Indeed, January has much to recommend it, for plants obtained from seeds sown during this month are much less apt to become drawn and spindling than those which have had to pass the winter under glass.

Districts which during the winter are mild and enjoy a large amount of sunshine are most suitable for very early sowings. In cold and dull districts forced flowers are difficult to obtain.

The seeds can be sown either in 5-inch pots and then removed into those of about 9-inch diameter in which they are to bloom, or they may even be sown direct into the larger size pots. If more convenient, the plants can be grown in boxes, but these must be at least 7 inches deep.

A good soil consists as follows: Three parts loam, one part well-decayed horse or cow manure, and sufficient sand to make the mixture porous. The addition of bone-meal can be very highly recommended, and powdered oyster shell is also beneficial. The soil should be made firm. Loose potting, I think, is very often one of the chief causes of the undeveloped flower-buds falling off. Good results can be obtained from seeds sown and grown in a border under glass, but this method suffers from the disadvantage that the plants cannot be kept so close to the glass as those which have been sown in pots.

Gardeners who neglect to sow seeds before February can obtain fairly early blooms from seeds sown during that month, and plants raised from seeds sown out of doors in the autumn will, if carefully removed, often prove very useful. If plants are taken from the open ground, the roots must be preserved as far as possible, and it should be remembered that the Sweet Peas are very deep-rooting subjects.

### GENERAL TREATMENT.

Throughout their existence the plants should be kept as hardy as possible, and should on no account be coddled, but receive as much light, sunshine, and air as can be given them. It is important that they should be kept as near to the glass as possible, for this tends to make their growth strong and short jointed. The temperature most suitable to successful culture is that of the cool greenhouse, but good results can be obtained even in a cold house.

When the plants are between 3 inches and 4 inches high, pinch out the growing points. This prevents the plants from growing so tall as they otherwise would before flowering. On the other hand, however, I believe that it slightly delays the time of flowering.

Although this makes very little difference to plants raised from seed sown early, yet when growing Sweet Peas from seed sown in the New Year, I think it makes a difference of at least three or four days. It is advisable, then, in the latter case, to leave some plants to grow naturally.

As with Sweet Peas grown in the open ground, staking is necessary. Some support should be given as soon as the plants show the least inclination to leave their upright position. Twiggy sticks are best, but any efficient substitute may be used. If stakes are used remember that small twigs must be provided to support the plants before they are large enough to be able to use the larger sticks. Remember also that Sweet Peas under glass do not grow so tall as those in the open ground.

When the flowering period arrives, and the pots are full of roots, artificial manure must be given. Give a top-dressing of rich soil, and any of the recognised liquid manures will do wonders in increasing the quantity and quality of the blossoms. If

### VERY EARLY BLOOMS ARE REQUIRED

the choice of varieties is a very important matter, for some naturally commence to blossom much earlier than others. In this respect Mont Blanc excels all other white sorts. It is something after the style of Emily Henderson, but much earlier than that variety. In addition to its precocity, it possesses another characteristic, which, in the case of plants grown under glass, is a decided merit. I refer to the fact that its growth, compared with that of most other varieties, is very dwarf.

Earliest of All is the name of a bicoloured Sweet Pea with rose standard and white wings. This variety also is very early, but as there are several different strains on the market, differing in earliness, care should be taken to obtain the earliest procurable. Earliest Sunbeams is a cream variety of recent introduction, and it can be highly recommended for culture under glass.

Any of the standard varieties of Sweet Peas can be grown by the method I have described, and although they will not begin to blossom so early as the three varieties I have named, yet they will give better results when they do flower.

For those who wish to know what they can expect from this method, let me say that results largely depend upon locality, but with fair success blooms can be obtained during the month of April. Their quality will not be quite equal to that of outdoor-grown flowers, but they will certainly prove exceedingly welcome. G. F. DRAYSON.

## THE FRUIT GARDEN.

### MANURES FOR FRUIT TREES.

**I**N the notes on page 303 of THE GARDEN, Vol. LXVIII., chapters were promised dealing with planting and manures; but the former subject has been treated so exhaustively by several experienced growers in recent issues, that it is unnecessary to repeat the advice given. The discussion on manurial applications suitable for fruit trees is, however, seasonable and important; the matter also is one concerning which misleading statements have appeared, even in official records, and the erroneous ideas thus created demand consideration. A hasty and ill-founded opinion has been formed that fruit trees are not

respondent to manurial aid, because in a few isolated cases the results from a short period of trial have not been proportionate to theoretical expectations. Yet experienced fruit-growers could furnish examples of unquestionable accuracy, demonstrating the effects produced by varying applications, from excessive dressings down to the poverty of inadequate supplies, or comparative sterility. Anyone familiar with the leading market gardens and commercial plantations could also adduce abundant evidence in the same direction.

Obviously, soils differ greatly in their natural fertility, and their adaptation to the requirements of fruit trees generally; therefore, dressings of manurial substances which in one district produce marked results, may in another show but little return in the first years of a plantation. Beyond this the demands of different kinds of fruits vary; the age at which the trees are planted, together with their condition, and the natural constitution of the varieties, all exercise some influence upon the results. Broadly speaking, however, it has been substantially proved that well-chosen manures, judiciously applied, both as to times and quantities, exercise a material influence upon commercial results, and these, directly or indirectly, concern most cultivators at the present time.

Exact and extended information is needed upon the subject, and further experiments well devised, carefully conducted, and efficiently recorded would be most valuable. Dr. Bernard Dyer and Mr. Shrivell have performed some useful work at Hadlow in Kent, and perhaps the National Fruit and Cider Institute at Long Ashton, Bristol, may include it in their experiments. The Royal Horticultural Society might also have sufficient space at their Wisley garden to undertake manurial trials, which under such an organisation would probably be extended over a long period of time, and thus afford more valuable averages and reliable conclusions. The experimental work at Rothamsted has furnished ample materials in connexion with the manuring of farm crops, but beyond what has been done at Woburn, comparatively little has been carried out systematically in the United Kingdom as regards fruits and garden crops on an extensive scale outside business establishments. In the latter case the work has been designed for personal advantage, and it is rare that observations are made public.

The experimental system organised in the United States of North America has, however, yielded an immense amount of statistical information, and after making due allowance for climatic differences, most of the conclusions were applicable here at the hands of trained horticulturists. The director of one of the principal stations states, in reference to an extended enquiry amongst fruit-growers, "while the larger proportion of the growers use fertilisers or manures upon the poor soils, a very considerable number use manures for orchards located upon soils which are regarded as of the best, yet all claim that it is a paying practice." Again, in further reference to general fruit culture, the same authority remarks: "Too many are satisfied with short crops of medium fruits, with off years, and with short-lived trees, largely because they do not know that all these conditions may be improved by a proper feeding of the trees, and that such feeding will result in a very largely increased profit." This is as true in Britain as in America. Plantations which have been of the highest value could be pointed out, where the decadence fast becoming too evident is entirely due to neglect in the supply of substances to maintain the available fertility of the soil.

In these notes we cannot consider the numerous special mixtures or proprietary manures, although many are undoubtedly excellent, and possess a value fully equal to the prices charged, as Dr. J. A. Voelcker pointed out in a recent lecture. Where their merits have been proved, growers are wise to continue the use of what has been

found to suit their particular soils. It would be invidious to make distinctions here; and the general principles of manuring applicable to fruit trees are best discussed in a consideration of definite substances as sources of the chief essentials, and the relative value of organic and mineral manures, separately or combined.

R. LEWIS CASTLE.

## THE FLOWER GARDEN.

### AN EARLY AND DISTINCT FRITILLARY.

(F. SEWERZOWI.)

**T**HE Fritillary family is a large and varied one, embracing many curious and interesting, as well as beautiful, plants. Some, like our graceful native Snake's-head Fritillary (*F. Meleagris*), are useful for naturalising in the grass. They grow freely in good soil, and produce a pretty effect with their drooping, tessellated flowers of various shades of colour. Others, like the stately Crown Imperial (*F. imperialis*), are more suitable for forming groups on the fringes of shrubberies or in the wilder parts of the garden. Some of the smaller members, like the beautiful *F. aurea*, only 4 inches or 5 inches high, are best in a border or the lower parts of the rock garden.

Between the two last-named species there are many grades of form and colour, one of the most distinct being the subject of the illustration, *F. Sewerzowi*. This plant comes from Central Asia, the home of many fine occupants of our gardens, and grows about 2 feet high when in a suitable position. It is somewhat after the style of *F. persica* in habit, but with broader glaucous leaves and fewer untessellated flowers. These vary in number from three to seven on each stem, each  $2\frac{1}{2}$  inches in diameter. The colour of the flower is a vinous purple, shading to green at the tips on the outside, and greenish yellow within, with a purple V-shaped blotch near the base. *F. Sewerzowi* is found on the mountains of Turkestan at an elevation of 6,000 feet, and was introduced into cultivation in the year 1873. It was considered by Dr. Regel to be a new genus distinct from *Fritillaria*, and he described it under the name of *Korolkowia Sewerzowi*. It has, however, no essential character to justify its separation from that genus, and was afterwards transferred to *Fritillaria*. It seems to be somewhat variable in habit and in the colour of its flowers, the form *F. Sewerzowi* var. *bicolor* being slightly more robust than the type, and having a more distinct purple blotch on the inside of the flower segments. There is, however, no material difference.

It flowers in February and March, and is a useful plant for pot culture in the alpine house. It is also quite hardy in the border, but on account of its earliness it should be planted in a somewhat sheltered position. One of the nearest allies to this plant is the pretty little *F. gibbosa* (*F. Karelina*), also from Central Asia. It is an interesting little plant, about 5 inches high, with a raceme of drooping pale purple flowers with darker veins and spots. Whilst not to be compared to the Crown Imperial in decorative value, it is worth growing for the sake of its earliness and distinct appearance. It is figured in the *Botanical Magazine*, t. 6371. W. I.

## IRIS OCHROLEUCA.

ALLOW me to say a few words in reply to the query at the close of Mr. Jenkins's most interesting note anent *Iris ochroleuca* in *THE GARDEN* of the 3rd ult. After its profuse flowering in 1904 my plant reverted to its normal shyness in 1905, only giving one-fourth the flower spikes of the former year. Notwithstanding the very fine specimen mentioned by Mr. Jenkins as growing in a very dry spot, I am still convinced that this species is a moisture-loving subject, and this opinion is confirmed by no less an authority than Sir Michael Foster, who, when in my garden some years ago, and when I was speaking to him of its shy-blooming properties, advised abundance of water during the growing period, as, in common with most species and varieties of the beardless section of *Irises*, it revels in moisture. My plant has been in its present position some fifteen years or so, and receives no attention other than the removal of the decaying flags, and a good mulch of well-decayed manure or leaf-mould about mid-winter as the new growths are appearing, which are now about 1 foot high, and look strong and healthy. I shall look forward with much interest to its behaviour in the coming season. Good companions to this species would be *I. aurea* and *I. Monnierii*.

J. HENSHAW.  
*Harpden.*

MR. HENSHAW on page 24 writes of this *Iris*—whose correct name, according to Kew, is *I. orientalis*—as being a moisture-loving species. It is certainly assumed to be so, and in nurserymen's catalogues and cultural directions its partiality for moisture is made a point of. I am, however, from personal experience unable to concur in that theory, for the finest and best-flowered clumps that I know are growing in an exceptionally dry situation. I am sending you a photograph of one of these clumps, which compares very favourably with Mr. Henshaw's, illustrated on page 25. When photographed this clump was carrying seventy-three bloom-spikes. It is growing in light and stony soil at the top of an almost perpendicular bank about 15 feet in height, through which any rain that falls percolates immediately, while in the summer the ground becomes dust-dry. For years past this clump has flowered as freely as is shown in the photograph. With me in similar soil it also flowers well and annually. Before I came to this locality I held the popular opinion that this *Iris* required moisture, but, in face of the proof here afforded that it grows well and flowers profusely

year after year in the driest spots, I have been forced to recant that opinion.

South Devon.

S. W. FITZHERBERT.

## THE ROSE GARDEN.

### MILDEW ON ROSES.

**I** HAVE read with interest the notes on this troublesome pest, which so often robs us wholesale of the autumn blooms, some of which are our choicest. I observed two years ago that in a large mixed plot, after a thorough soaking with water drawn from a main and sprayed in the air to warm it somewhat, mildew appeared within seven days,



A DISTINCT AND UNCOMMON FRITILLARY (*F. SEWERZOWI*).

and, in spite of preventatives, spread to all kinds in a short time. The Teas suffered least, but the Hon. Edith Gifford and Mme. Berard were badly attacked. Last summer, about the same time (August), I sprayed with the soft soap and sulphur mixture. Yet, directly recourse was had to the water-tap and tank, mildew appeared. In both these instances the ground was allowed to get fairly dry before watering. In the coming season I intend to mulch, never allow the soil to get dry, water with tepid water only, and spray, part with sulphur, part with Izal, and part with potassium sulphide. My soils are: Heavy loam and gravelly loam on gravel; sandy loam, deep; and free loam on sand. Still, all appear to suffer alike, differing only in degree. The process of exhaustion seems to be

the surer way of overcoming this difficulty, and perhaps some of your numerous readers who are Rose-lovers will be generous enough to make similar and other tests, so that results will not be derived from one or two isolated instances. D.

### JOTTINGS ABOUT ROSES.

(Continued from page 117.)

#### ON STOCKS.—THE BRIAR.

SINCE the inferiority of the Manetti stock has been proved, there has been pretty complete unanimity that most Teas and Hybrid Teas are best on the Briar, whether as cuttings, seedlings, or standards. The authorities are divided on the question as to which of the first two makes the better stock, but I fancy this is rather a matter of splitting hairs, as it is extremely difficult to see any difference in the nurseries between the growth of Teas on the Briar cutting and Teas on the seedling Briar. I have always favoured the seedling

Briar myself, because for a long time now my Roses have had to be grown on a light and very warm soil which does not conserve moisture for any length of time. The Briar cutting is not quite so vigorous as the seedling, because it does not go so far afield for moisture, which is the chief desideratum here.

The advice usually tendered when planting Roses on seedling Briar is to spread the roots out horizontally and bend the tap-root, so that it does not continue on its downward course. In conversation with a neighbour whose garden is situated on the same soil as that in which I grow most of my plants, he enquired my opinion as to whether this was really sound advice for those who have to deal with soils that dry quickly, or whether it would not be better to allow some of the longest roots of the stock to be planted at the depth which they had attained before removal. In the pamphlet entitled "Hints on Planting Roses," published by the National Rose Society, this aspect of the subject is only just touched

upon. [Mr. Foster-Melliar, however, makes a strong pronouncement on it, and I cannot do better than quote what he says, word for word:

"Comparatively shallow planting, especially if the Roses are going to be cultivated and not neglected, is a great secret of success. A good piece of advice is to mark the line of soil upon the plant, and be careful not to cover it deeper than it was before; and a *bad* one is to plant deeper in light soil to avoid the drought. The principle of shallow planting and dependence on horizontal surface-roots is well understood by gardeners in the case of fruit trees; they will take much pains to cut the tap-roots, and will even lift the roots of their Vines, Peach, and other trees if they prove unfruitful, lay them in again nearer the surface, and encourage them by all means in their power to remain there. They know that the produce of tap-roots is gross wood without flowers, and that fibrous surface-roots must be looked to for flowers and fruitfulness; yet some recommend the seedling Briar as a stock because it roots deeper, although we surely want flowers, not gross wood alone, from the Rose as well as the fruit tree. In planting, therefore, spread the roots out horizontally. . . ."

Now in my own case I have never pursued any other plan than that recommended here by Mr. Foster-Melliar. Numbers of my rosarian friends bud their Roses on seedling Briars which have only once been transplanted, and this only from the seedling bed, and the plants thus formed are permanently left just where they were budded, without any ill effects as far as I have seen. If one's ground is in good order, and has been deeply trenched, I do not for one moment believe that

the deep roots of the seedling Briar will produce "gross wood without blossom." Certainly, as far as the Teas and Hybrid Teas are concerned, we can only keep the plants in health by constantly securing strong basal growths and cutting out the oldest wood all the time. My aim and object in planting on our hot, shallow soil is to secure some nice fibrous roots near the surface and allow the main roots to run below them at a considerable depth. The top roots are the first to assimilate the light dressings of chemical, or doses of liquid, manure which I always give to my plants at frequent intervals. But these roots fare badly during such a drought as we had last season, when the ground was dry from 6 inches to 1 foot down, in spite of repeated hosing. The roots running at a deeper level constitute the staying power of the plants, as they are the last to feel excessive drought. After all, ample moisture is the Alpha and

Omega of Rose cultivation, and directly the plants begin to suffer from dryness at the root, growth and, of course, the production of flowers cease immediately.

Mr. Foster-Melliar's statement about the seedling Briar producing wood at the expense of flowers is entirely disproved at the present day, because probably two-thirds of the best blooms at any National Rose Society show are cut from plants worked upon seedling Briars whose roots have never been disturbed since they were transplanted from the seed-bed.

A. R. GOODWIN.

*The Elms, Kidderminster.*  
(To be continued.)



ONE OF THE EARLY-FLOWERING JUNO IRISES (I. SINDJARENSIS).



# NEW FRUITS & VEGETABLES.

## SHARPE'S STANDARD PEA.

THIS is a main crop variety growing about 5 feet high. It belongs to the Alderman type, but is a heavier cropper and superior to that variety. It is a strong grower, pods chiefly in pairs; the pods are long, straight, and of handsome appearance, containing large Peas of fine colour and flavour. We consider it one of the finest Peas of this type on the market. Needless to say, it is a splendid Pea for exhibition, and a profitable one for market gardening. It was awarded a first-class certificate by the Royal Horticultural Society in 1900. It is sent out to the trade only by Messrs. Charles Sharpe and Co., Sleaford.

## WEBB'S NEW EMPEROR TOMATO.

SUCH perfection has been attained in Tomatoes that it is difficult to raise a variety superior to those already in existence, but in comparative trials Webb's New Emperor stood out as being of exceptional merit, and it is confidently expected to prove one of the finest Tomatoes ever introduced. It is

suitable alike for indoor and outdoor culture, is early, of healthy and robust constitution, a very free setter, and its cropping properties are extraordinary, the plant being literally covered with bunches of fruit, which is of fine shape, deep red colour, and good flavour; while it will be found excellent for exhibition purposes. For market growing it is unsurpassed, and it is equally valuable for the gentleman's gardener or the amateur. It is introduced this year for the first time by Messrs. Webb and Sons, Wordsley, Stourbridge.

## NEW & PROMISING VEGETABLES.

EACH year many new vegetables or new types are intro-



SHARPE'S STANDARD PEA.



WEBB'S NEW EMPEROR TOMATO.

duced to the public by our leading seedsmen, and, generally speaking, many of them are a great improvement on existing varieties. At no time of our history has such trouble been expended on vegetables as the present. One has only to go back a few years, and note the advance made in most of our important kitchen garden crops, to satisfy one's self that such is the case, and especially noticeable, to mention a few, are Peas, Beans of different sorts, Beetroot, Carrots, Brussels Sprouts, Cabbage, Cauliflowers, Celery, Lettuce, Onions, Parsnips, Potatoes, Turnips, Tomatoes, Cucumbers, and many others. Not only have great improvements been effected in quality and appearance, but many of the varieties have been so selected that they range over a much longer season, as in the case of Peas,

Tomatoes, Carrots, Turnips, Cabbage, and such-like. It is now quite easy, when suitable accommodation is provided, to extend the Pea crop from April till November by making a careful selection of suitable varieties, and so with Cauliflowers. These can be had quite easily now nine or ten months out of the twelve. There are a few notable additions of quite recent introduction, each of which have come under my personal notice, and which I can recommend with the greatest confidence.

## TOMATO CARTER'S SUNRISE.

With such a large number of varieties, many of which are of undoubted merit, one would have thought it was almost impossible to improve on these, but the above variety has caused quite a surprise during the past season. We grew it here, and I saw it on several occasions in various parts of the country, including Wisley, where a large and important trial of Tomatoes was carried out. I am bound to confess that these trials were splendidly accomplished throughout, nearly all the best varieties being included, but Sunrise was, in my opinion, the best. It has everything to recommend it—habit, free-fruited, quality, shape, and colour. It was worthily awarded first-class certificate by the Royal Horticultural Society, a very high honour indeed for a Tomato.

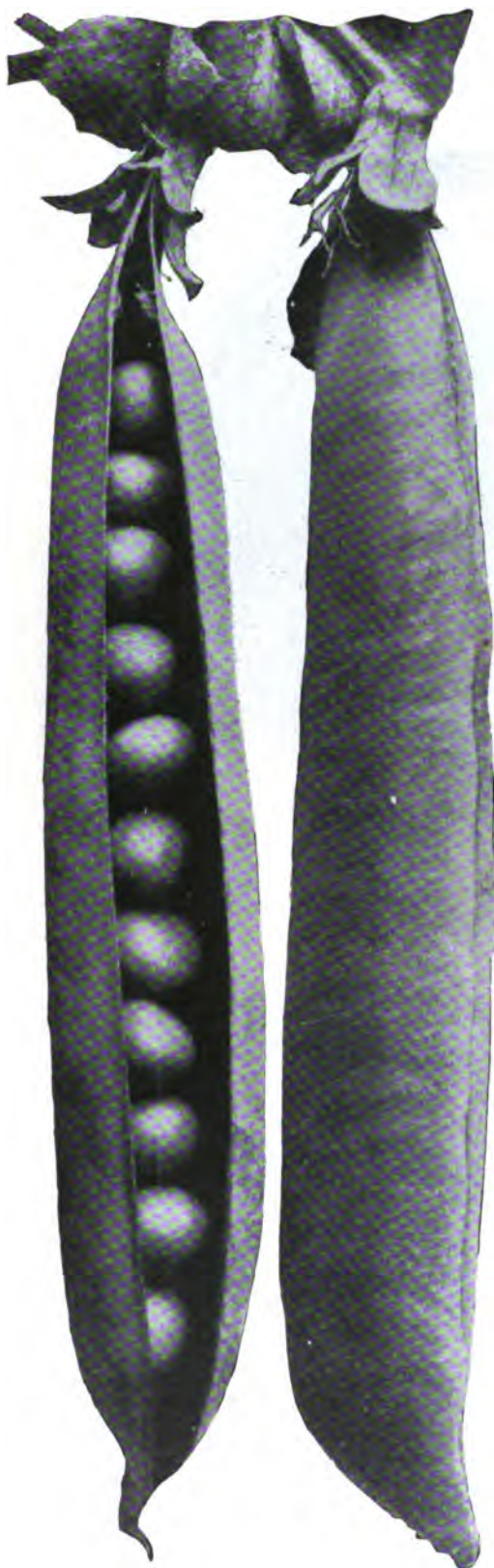
## TOMATO SUTTON'S CASCADE.

A new and very distinct decorative variety. It has long racemes, from 20 inches to 24 inches in length, covered thickly with beautiful bright carmine fruit. A most attractive and desirable Tomato.

## CUCUMBER SUTTON'S DELICACY.

This variety was raised by that distinguished and successful Cucumber-grower Mr. Mortimer, who has done so much to improve the Cucumber,





CARTER'S QUITE CONTENT PEA. (Natural size.)

and many of the very best sorts of the present day are due to his energy and care. This sort received an award of merit from the Royal Horticultural Society. It is perfect in shape, of a good colour, and carries a nice bloom. Either for exhibition or home use this is certain to become a great favourite.

#### RUNNER BEAN SCARLET EMPEROR (CARTER'S).

Though this variety was before the public last year, the stock was too limited and expensive to allow it to be generally grown. It was raised by Mr. R. Lye of Lydmonton Court, Newbury, an honoured name among vegetable growers. The pods attain a great length, from 12 inches to 16 inches, as well as possessing a most refined appearance. I have grown it for the two past seasons, side by side with most of the best-known varieties, and I do not hesitate to say it stands out conspicuously as the best.

#### CAULIFLOWER JOHNSON'S PERFECTION.

A mid-season variety of great promise. No doubt one of its parents was that well-known variety Veitch's Autumn Giant. It produces heads of superb quality, of medium size, and will make a grand exhibition variety. Absolutely distinct from anything else I have seen.

#### ONION WEBB'S NEW NONSUCH.

A large globe-shaped variety of much merit. It is a splendid keeper, of excellent appearance, and mild in flavour.

#### POTATO EASTERN STAR.

This was raised by Mr. J. H. Ridgewell, Histon, Cambs., of Potato fame. He kindly sent me a few tubers to try last year. I was much impressed with it as a second early. It is a handsome, kidney-shaped variety, a great cropper, and of the best quality. This should make one of our best exhibition Potatoes, as well as a good market variety.

#### POTATO WEBB'S CHIEFTAIN.

Messrs. Webb and Sons have been instrumental in placing many excellent varieties before the public, but I question if they have ever raised a better one than the above, and I anticipate a great future for it. It is a main crop variety, white skinned, oval shaped, an immense cropper, and, so far, has proved quite free from disease. First-class quality, and fine for exhibition.

#### DWARF PEA WEBB'S SURPRISE.

A very early, dwarf Marrowfat variety of much promise, especially for growing under glass. It is wonderfully productive considering its height, which is from 18 inches to 20 inches. Colour and flavour excellent.

#### PEA CARTER'S QUITE CONTENT.

As I was fortunate enough to raise the above variety, the result of a cross between Alderman and Edwin Beckett, it would be presumption on my part to say much about it. It attains a height of from 5 feet to 6 feet, is a main crop and late variety, a very robust grower, consequently requires plenty of room. As Messrs. Carter and Co. have decided to offer it at a price within the reach of all, anyone anxious to obtain the largest variety in existence should not fail to secure it.

E. BECKETT.

#### CARTER'S QUITE CONTENT MARROWFAT PEA.

THIS grand main crop Pea, which was finely exhibited at several of the exhibitions of the Royal Horticultural Society during the past season, is the outcome of a cross between Alderman and Edwin Beckett. In general character it resembles the former, but the pods are considerably larger than those of either parent. In Messrs. Carter's trials, comprising 1,474 so-called different sorts, it has amply demonstrated its wonderful superiority, and when exhibited in the highest award collection at both Vincent Square and the Royal Horticultural Society's show at Chelsea, it was pronounced by experts to be without doubt the finest Pea ever seen. It is exceedingly prolific, and the

pods hang mostly in pairs. Height, 5 feet to 6 feet.

#### CUCUMBER THE AMATEUR.

THE new Cucumber The Amateur is a variety introduced by Messrs. Daniels Brothers, Limited, Norwich, this season. They think very highly of it, and it has been most favourably reported upon. For amateurs and small growers this variety is an excellent one; it sets its fruit freely, and the latter is very handsome. In character this Cucumber is best described, perhaps, as a highly-selected type of the Rochford or Covent Garden strain, but it is in some points superior. It is very productive, frequently bearing three or four handsome fruits at a joint. The fruits are of good shape, and average about 20 inches in length, the neck being remarkably short.

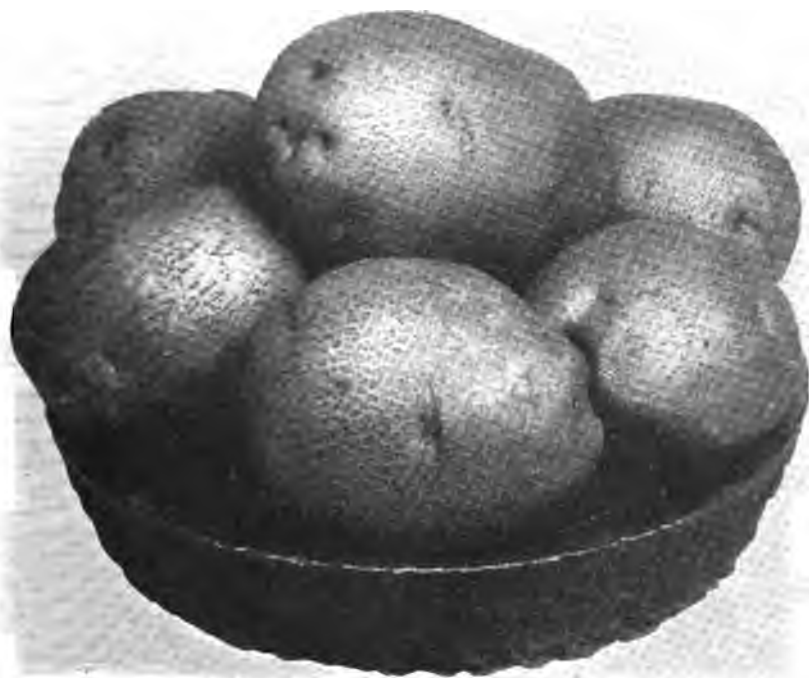


DANIEL'S CUCUMBER THE AMATEUR.

This, in consequence of its splendid quality and productiveness, will prove an ideal Cucumber for the amateur, besides being one of the best for market or exhibition.

#### SOME GOOD PEAS.

FOR present sowing Sutton's Early Giant and Sutton's Duchess of York are two excellent varieties, being abundant croppers and of good flavour. Select a warm border or plot having full sun. If the ground has not already been trenched, instead of trenching the whole plot dig out trenches 6 feet apart, 1 foot wide, and 1 foot deep, placing at the bottom of each trench 4 inches of decayed manure. If the ground is light, use cow manure; if heavy, use



FIDLER AND SONS' MAIN CROP POTATO INVINCIBLE.

stable manure. Fill up the trenches with the top soil to the level of the surrounding ground. For Peas sown in April, May, and June it is better to leave the surface of the trenches hollowed out a little so that in very hot, dry weather the Peas can be judiciously watered. The ground between the trenches can be dug, and in time planted with early Cauliflower, Potatoes, or Turnips. When sowing get out a drill with a spade or wide hoe 2 inches deep, and sow the Peas 2 inches apart. A good plan to keep mice away is to sprinkle the Peas lightly with water and then with powdered red lead before sowing. To keep up a successional supply of Peas a sowing must be made every ten or twelve days. I have found the following varieties to come well in succession after those already named: Gradus, Thomas Laxton, Duke of Albany, Sutton's Prize Winner, Sutton's Peerless Marrowfat, Alderman, Autocrat, and Gladstone. These are all good croppers and of excellent flavour. The advantage of trenching for Peas is that it enables the plants to root freely. Give Peas plenty of room between the rows so that they can get sufficient light and air. Another very important matter is not to sow too thickly. I have often seen rows of Peas nearly ruined through indiscriminate and careless sowing.

Marlow.

G. W. SMITH.

#### POTATO FIDLER'S INVINCIBLE.

THIS Potato, introduced by Messrs. Fidler and Sons, Reading, in 1905, is a splendid main crop variety. It is a heavy cropper, and

its table qualities are admittedly excellent. It produces a strong upright haulm, very vigorous and disease resisting. It is a coloured round variety with netted skin, and keeps well.

#### SOME OF THE BEST MELONS.

THE accompanying illustration shows some of the best of the Melons sent out by Messrs. Sutton and Sons, Reading. Prominent among these is Hero of Lockinge, an old but still a favourite Melon. It succeeds as well in a cold pit or frame as in the Melon house, and comes very early. Sutton's Royal Jubilee is a very fine green-fleshed Melon, raised in the Royal Gardens, Windsor. It is handsomely netted, and has rich deep green flesh of delicious flavour. Sutton's Superlative is a new scarlet-fleshed variety, of which Messrs. Sutton and Sons say, "Although we have had many seedling Melons under trial in recent years, we can certainly say that in no single case have we met with one combining the exceptionally good points of Sutton's Superlative. It is a fruit of medium size, almost round, and handsomely netted, but it is in the quality and texture of the deep flesh that the chief merit lies." Sutton's Royal Favorite, a beautiful Melon with a thick white flesh of exquisite flavour; Windsor Castle, a large green-fleshed fruit; Best of All, green fleshed (Sutton's A1 x Windsor Castle); and Ringleader, one of the finest Melons with pale green flesh, are all splendid varieties. Among the best scarlet-fleshed sorts are Sutton's Scarlet, Empress, A1, and Invincible. Sutton's Open Air Melon is an excellent Melon, which in warm summers has been successfully ripened in this country without protection.



SUTTON'S LEADING VARIETIES OF MELONS.





SMITH'S SELECTED DRUMHEAD KALE.

#### SMITH'S SELECTED DRUMHEAD KALE.

BORECOLE or Cabbage Kale is, like the Savoy, a late winter and early spring green, and very hardy. Sowings made in April usually suffice for all ordinary purposes, and are best made in drills. There are numerous varieties, and among the most distinct is Smith's Selected Drumhead, shown in the accompanying illustration. It has heads somewhat similar in shape to Drumhead Cabbage, the individual leaves being mainly composed of a thick, fleshy midrib, with elegantly fringed edges, and of striking appearance. It is of delicious flavour and easily cultivated, growing freely even in poor soil.

#### MELON EASTERN QUEEN.

This fine seedling Melon is a cross between Hero of Lockinge and Taunton Hero, and combines the splendid qualities of both parents. The fruit is remarkably handsome, round in shape, of rich orange-coloured skin and beautifully netted. The flesh is rich cream colour, remarkably solid, and of exceptionally rich flavour, melting to the taste. It has only been exhibited twice, and on each occasion was awarded a first prize. The entire stock has been secured by Messrs. John K. King and Sons, Coggeshall, Essex, and Reading, who recommend it as one of the best Melons they have sent out.

#### SHELTER FOR KITCHEN GARDENS.

ON the principle that each thinks his own misfortunes the worst, I have, I suppose, imbibed the idea that in no part of Britain are bitter north-easterly winds so severely felt as here. Be that as it may, however, we certainly get them to some tune all through the early spring-time, and having this season begun their annual raid, we are busy taking steps to counteract their disastrous effects on all early vegetable crops. We have good walls, and they do much to break the force of the wind, though over some two-thirds of the garden the current sweeps down in full blast, infinitely more damaging than frost,

Apples on the dwarfing stock with the same intent; Black and Red Currants in lines a good distance apart, so as not to shade the vegetable crops too much, would serve the same purpose. Much as one dislikes this mixed way of growing fruit and vegetables together, there is much to be said in favour of the plan, especially as regards early vegetables. The warm border, invariably recommended to be made use of for every description of early vegetables and salads, is no doubt the proper place for all such crops, but unfortunately there is a limit to its extent, and owing to this some few years ago we determined on doubling the extent of such borders. This we did by taking a slice of 12 feet from the entire length of the kitchen garden, and being taken from the upper portion of the main plot it has a full southern exposure, with a thick screen of Pear trees on the northern side, and in order to make the position still warmer the ground was thrown up into the form of a bank, sloping to the south. The plan has succeeded beyond our expectations; indeed, the crops from this border are quite as early as those from borders in front of south walls. This question of shelter for the vegetable garden, though of the greatest importance as regards forwarding early crops, is by no means limited in its beneficial effects to these, as everyone would be ready to admit if, after a severe gale in early autumn, they would take the trouble to examine the effects that the wind has on such crops as Brussels Sprouts, Broccoli, and French Beans. A deep cavity at the base of the stem will all too plainly show the injury that accrues from lack of shelter, and, perhaps, may serve as an incentive to devise ways and means of preventing a recurrence of the damage.

Hants.

R.



JOHN K. KING AND SONS' MELON EASTERN QUEEN.

## THE JUNO IRISES.

**I**RIS SINDJARENSIS belongs to a group of the genus to which has been given the name Juno Irises, the most familiar members of which are *I. alata* and *I. persica*. They are all bulbous, and are most abundant in Asia Minor, Persia, and Turkestan. The Western representative of the group is *I. alata*, which is found in Southern Spain and Algiers. *I. sindjarensis* is a native of Mesopotamia. It is quite hardy in this country, and on a warm, sunny border will often open its flowers in February, although March is the normal flowering time. The bulb is large, and produces a stem about 1 foot high, bearing several glossy green distichous leaves, which gradually taper to a sharp point. Three or four flowers are borne on each stem in succession, and possess a Vanilla-like fragrance. The whole flower is blue in the centre, becoming paler towards the tips of the segments, with a faint ridge of yellow along the blade, which has darker veins. A pale variety of this species is known as *I. assyriaca*, which is a vigorous plant, growing under favourable conditions 18 inches high, and bearing numerous flowers on each stem. Both are well worth growing on account of their earliness and hardiness. It is true that the flowers are often spoiled by frost and heavy rains, but this applies to many other early-flowering plants. An interesting hybrid between *I. sindjarensis* × *persica* has been raised by C. G. van Tubergen, jun., and is called *I. sind-pers*. It has porcelain blue flowers, with black-tinged falls and a golden orange crest. The whole of the Juno group form a fascinating set of plants, and a collection of them planted on a warm border will provide a succession of charming and beautiful flowers in the spring, ranging from the early *I. stenophylla* in January to *I. caucasica*, *I. persica*, *I. orchioidea*, and others in March and April. W. I.

## THE GREENHOUSE.

### THE LACHENALIAS.

**L**ACHENALIAS are charming bulbous plants for the greenhouse. They may either be grown in pots, pans, or baskets. The bulbs should be potted in August in a sandy soil and kept in a frame until cold weather sets in. Then they should be brought into the greenhouse, placing them, if possible, on a shelf near the glass. Take care not to expose them to draughts, or the leaves may be disfigured. Coolness is one essential point in the successful culture of these bulbous plants, the cause of failure with so many being coddling. The plants under my charge were standing in cold frames when an unexpected severe frost came, and the foliage and soil in the pots were frozen quite hard. I was afraid that the after-growth and blooming would be affected by it, but I

soon found that the plants were none the worse. Annual division and repotting of the bulbs are imperative, as if left the second year in the same pots, a weakly growth and poor flower-spikes are the result. Each pot of flowering bulbs of the old *Lachenalia tricolor* annually produces a colony of small

the plants or in a cut state, if an occasional change of water is given them. A mixture of loam, old Mushroom manure, and grit forms a suitable compost, good drainage being necessary, as in spring the plants require abundance of water. The new *Lachenalia* illustrated, called *Brightness*, was raised by Mr. F. W. Moore, Botanic Gardens, Glasnevin, who exhibited before the Royal Horticultural Society on the 13th ult. It is a bold and showy flower, pale orange-coloured tinged with reddish crimson at the mouth. It received an award of merit. T. W. W.

### TWO-YEAR-OLD CYCLAMEN.

**P**ERHAPS it will be of some interest to the readers of *THE GARDEN* to give my experience in growing two-year-old *Cyclamen* corms. From the seed sown in August of the previous year I had the best colours saved to flower a second year. After the flowering period the plants were rested in a cold frame, though, of course, the corms were not allowed to shrivel. The first week in July they were shaken out and potted up in

6-inch pots in a mixture of loam, leaf-mould, and sand, together with a little brick rubble. I find *Cyclamen* are very fond of the latter ingredient. They were then placed in a temperature of 65° on a shelf close to the glass, shaded, and syringed. After the plants had made growths 2 inches long they were removed to a frame and gradually exposed to the air. They were kept syringed and shaded from the sun during the hottest part

of the day. About the third week in September they were taken in and placed in a temperature of from 45° to 50° and fumigated with XL All for two consecutive nights. I have now a batch of plants in 6-inch pots, grown as I have stated, with seventy-five blooms on a plant. The foliage, too, comes better the second year, and is prettily marked. I feel sure if any readers of *THE GARDEN* will only flower their *Cyclamen* the second year they will be rewarded with an abundance of blooms. W. R. Cox.

Barton Court Gardens, Kintbury.

### PRIMULA KEWENSIS.

**Y**OUR correspondent "A. O." mentions that this hybrid Primrose comes true from seeds. That information comes as a surprise, as I had been led to believe that it was a pure Mule, or infertile, as true hybrids commonly are. I learnt so much from those recently engaged in its production very largely. Did this non-fertility apply to the earlier plants, and, if so, has continued propagation by division now induced fertility? Naturally, it would be well that the point should be made clear, lest *Primula floribunda* be put on the market for *P. kewensis*. It may be that "A. O." in referring to the hybrid coming true from seed, meant only the seedlings produced from the hand-made cross at Kew with the assumed parents of *P. kewensis*, subsequently to the introduction to commerce of that hybrid. A. DEAN.



THE NEW LACHENALIA BRIGHTNESS.

(A valuable greenhouse plant.)

offsets, which, if potted up and grown on under good treatment the second year, will flower well the third. *Lachenalia Nelsoni* is one of the finest of all. More recently-introduced varieties are likely to become very popular. *Lachenalias* are not grown so much as they deserve to be, as, in addition to the beauty and general usefulness of the flowers, they last such a long time, either on



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**P**ROPGATION BY GRAFTING.—*Tongue or Whip Grafting.*—X. Stock with the top cut off to the distance from ground at which the scion is to be affixed; (u) point of inserting knife opposite a bud; (v) point of bringing out knife in making gently sloping cut about half an inch above the bud; (w) bud. Y. Stock sliced; (x) slip made upwards to correspond with the slanting out of the scion at least on one side. Z. Stock tongued; (y) tongue made by a slanting cut downwards and inclining inwards, a piece of wood being removed by a vertical cut from the top, thus taking out a wedge-like piece of wood (not necessary in small stocks and ordinary scions), and so forming a tongue pointing upwards. A. Scion or well-matured shoot of previous year's growth of the desired variety; (z) slanting cut from 2 inches to 3 inches long; (a) lowest bud removed; (b) buds left for vigorous stock; (c) buds left for a strong stock; (d) buds left for a weak stock. B. Scion sliced; (e) slanting cut made inwards at the upper edge of the cut about an eighth to a quarter of an inch deep, and slanting exactly the same as the top of the stock on which it is to rest; remove the small portion of wood with an upward cut; when the cut portion of the scion is placed against the cut part of the stock they must fit exactly, at least on one side. C. Scion tongued; tongue made by a slanting cut upwards and exactly fitting the cleft of the stock, though rather less than greater in width, but precisely the same in length. D. Scion attached; (g) tongue in cleft of stock; (n) bark of stock and scion exactly coinciding, at least on one side, thus bringing the inner barks together. E. Scion and stock tied and clayed; (s) material (matting or raffia) binding the scion and stock firmly together; (j) section of claying material to make junction air-tight (some use grafting wax). Subsequently keep the clay or wax effective, and loosen the ligature when the scion has made about 6 inches of growth, then place a stick close to the tree, tying the stock and scion to the stick so that no wind can move it. Whip grafting is sometimes performed without a tongue, the scion being prepared as shown at B, and the stock as shown at Y, and the two joined together as at D, but without the tongue. Then bind securely together, as at E, and cover with clay or wax; this is termed "Splice Grafting," and preferred by some as not weakening stock and scion so much as in tongue grafting.

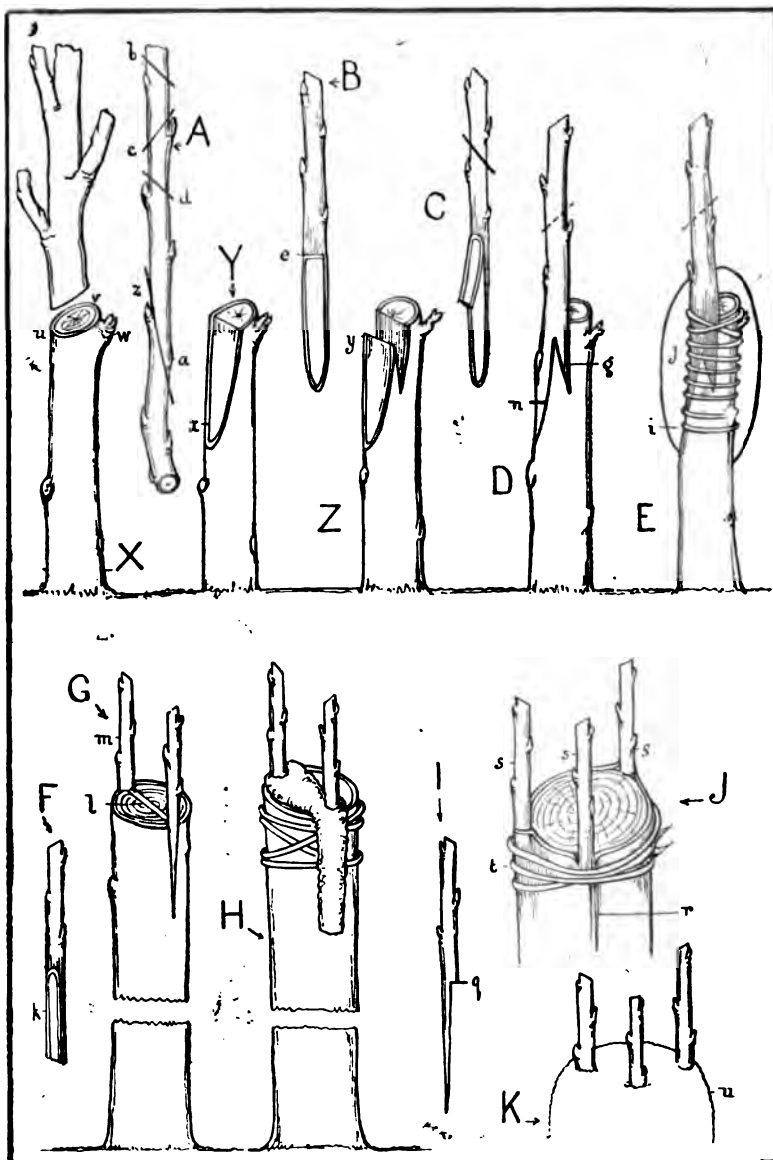
*Cleft Grafting.*—F. Scion; (k) wedge-shaped cut 2 inches or 3 inches long, a little thinner on the inner side opposite the bud, in order to ensure close contact of the bark where the scion and stock join. G. Stock, top of a trunk or branch, with scions inserted; (l) cleft made by chisel and mallet right across trunk or branch, the chisel or a wedge being placed in the centre of the cleft to keep it open while the scions are inserted; (m) scions properly placed, always on one side of the cleft so that the inner bark is in contact with the inner bark of the stock the whole length of the scion; this is important, as if set a little too far out or a little too far in, failure must result. The wedge must be withdrawn carefully so as not to displace the scions. H. Cleft grafting completed; binding of soft tarred string and grafting wax; completely cover the cleft at the top and down the sides as low as the stock is split. The scions for cleft grafting may be as thick as the finger, and of wood two years old or more. They must be clean and healthy, and have two or three buds clear above the stock. Cleft grafting is suitable for stocks over 1 inch in diameter, upon which whip grafting cannot

conveniently be performed. The main stem of a tree can be successfully operated upon, but it is better to make use of branches rather than graft when the trunks of the trees are of large size, grafting them at about 1 foot or 15 inches from the main stem. Three to five branches worked with two or three scions each, either by this or by crown grafting, form good heads, and come into bearing in two or three years.

*Crown Grafting.*—I. Scion, about 6 inches long, of well-matured wood of previous year's growth with three plump wood buds at the upper end, lower part cut in a slanting direction 2 inches to 3 inches long, the same as the whip graft; (q) shoulder to fit top of stock. J. Scions fixed; (r) slit down through the bark in a smooth part, 2 inches long; (s) scions inserted in the stock, a hard wood wedge being used, shaped like the scion, but rather smaller; raise the bark and insert the wedge in the centre of

March to April; in the North, the first fortnight of April. Young stocks, as a rule, are ready to graft ten days to a fortnight before old trees. It is better to graft trees late than too early; do not graft until the sap is flowing freely in the stock. Stocks should be cut before the sap rises, or some time in advance of the operation, and near the points where the grafts are to be inserted.

*Bulbs after Flowering in Pots and Boxes.*—The usual forcing bulbs are now very cheap, and large growers do not find it pay to take pains with the old bulbs after flowering; but with care during the ripening process they might be made to flower a second season. We grow a lot of *Daffodils* in boxes for cutting, and when ripened off the best are selected and boxed again the second season, the others being planted out where there is room among shrubs and fruit trees, and a considerable number of them flower. *Hyacinths* are treated in the same way, except the Roman



PROPAGATION BY GRAFTING. (See accompanying notes for description.)

varieties, which with us have not been of much use; neither have Tuberoses much value after flowering.

*Planting the Forced Bulbs among Roses.*—Many of my amateur friends plant the bulbs when they have flowered in the greenhouse round the edges of the Rose beds, where they flower well for years, yielding many sweet flowers for cutting. I have seen the same course adopted with bulbs, Rhododendrons, Kalmias, and other American shrubs, and the top-dressing usually given to the beds of Rhododendrons suits the bulbs, which should be planted in masses of one colour.

*Pruning Open-air Vines.*—Of late years open-air Vines have been much neglected, especially in the matter of pruning, both in summer and later. As regards what is termed winter pruning, all Vines should be pruned as soon as the leaves fall, and if the Vines are to be kept in a healthy, fruitful condition, encouragement should be given to young rods. Give the Vines a chance to renew themselves from the base, or wherever young rods start away. This, of course, involves the removal of an old rod occasionally, and so constant improvement is possible.

*Spur-pruning Vines* means cutting back the laterals on each side of the main rods to one or two buds or eyes. Open-air Grapes usually bear freely enough, so there is no fear that close pruning will mean a short crop, and the size of bunch and berry can be increased by feeding. Unfortunately, very few open-air Vines have anything given to them beyond what is contained in the natural soil, and the Vines are usually planted without any preparation of the border. If the Vines were cultivated, the roots nourished, and the branches pruned and regulated, there would be a change for the better.

### TOWN GARDENING.

*Vigorous Climbing Roses.*—It is always a great pleasure to see climbing Roses growing strongly and to watch the vigorous shoots as they rapidly make their way to the top of the pole or arch. Two of the finest, most vigorous growers are *Polyantha grandiflora* and *Conrad F. Meyer*. They are perhaps really too rampant for the small garden, but, nevertheless, I am planting them in mine. One always wishes to have a pole or arch as quickly covered as possible; even if the Roses become too crowded one can usually find some means of training the shoots in new directions. If, for instance, the arch or poles are covered, and the Rose shows by its rampant shoots that it needs more space in which to grow, it is an easy matter to join the poles together by means of cross pieces, and so eventually form an arbour perhaps, or, in the case of the arch, to erect another one by the side of it. If one cannot afford to make a pergola all at once, it is rather a good plan to do as I am doing—to make it a little at a time. The first year I simply erected poles; the next year I fixed cross pieces of wood from the top of one pole to the top of the next, and so on until I had a series of square arches. As soon as the Roses have covered these, I shall consider the matter of having other cross pieces from the poles on one side to those on the other, thus crossing the pathway and completing the pergola. When one starts growing climbing Roses with nothing but poles for them to climb upon, it is astonishing how soon one finds it necessary to extend the woodwork and complete the pergola or arbour, or whatever design is preferred.

*The Best Varieties.*—The varieties of climbing Roses are now so numerous that it is, of course, impossible to choose half-a-dozen, or even a dozen, and say that they are the best. The sorts I shall mention are those which I have planted in a small suburban garden, so that I am writing

of their behaviour there only. Of those I have none is better than *Dorothy Perkins*; this is a slender-growing Rose, with rich dark green leaves and bearing clusters of lovely pink flowers. Some of the shoots grow 6 feet or 8 feet or even more in one season, and the next produce a profusion of blossom. This is a Rose that all suburban gardeners should possess. The pale yellow or cream coloured *Auguste Barbier* is another Rose of similar growth; it grows just as freely as *Dorothy Perkins*, but does not make such a brilliant display owing to the quieter colouring of its flowers. *Reine Olga de Wurtemberg* is a grand climbing Rose; it bears large bright red flowers that make a delightful show. It is a good grower and a splendid Rose for the beginner. *Aimée Vibert*, *Félicité Perpetue*, and *Mme. Abel Carrière* are three beautiful white climbing Roses; all grow and flower freely. The last is, perhaps, the most beautiful of the three. A Rose called *Claire Jacquier*, which bears bunches of pretty buff-coloured flowers, although it has the reputation of not being very hardy, has done splendidly with me. It made a strong shoot last year more than 8 feet long. Other climbing Roses I should recommend for the suburban garden are *Crimson Rambler*, *Leuchtstern*, *Longworth Rambler*, and *Flora*. Climbing *Souvenir de la Malmaison* and *Reine Marie Henriette* grow splendidly, but each has its drawbacks. The flowers of the former are apt to come with green centres, and the colour of the latter, a purplish red, is not particularly pleasing. I do not think the old *Gloire de Dijon* is a particularly good Rose for the beginner, for it often gets bare at the base, and unless carefully pruned it soon becomes a collection of bare growths with a few flowers at the top of each. Now there are so many beautiful Roses that will grow in the open garden, I advise those with small gardens to plant fruit trees against the walls and train the Roses over arches, poles, and pillars.

### PRIMULAS & CYCLAMEN.

#### NOTES FROM READING.

**P** PRIMULAS and Cyclamen! How welcome and how indispensable are these spring flowers, even in the smallest greenhouse, and how dull the early spring would be without them. While the Daffodils that soon shall make the garden gay are just peeping through the damp, cold ground, the Primulas and Cyclamen make greenhouses and conservatories a feast of dainty colour. The Primula is more indispensable now than ever before, for the word Primula to-day denotes quite a different plant from that of years ago. The flowers then were small and insignificant, of poor and limited colouring, and sparsely produced. The hybridist, the skilled worker among the flowers, has changed all this, and a visit to a representative collection of Primulas to-day, such as that of Messrs. Sutton and Sons at Reading, serves to show what a veritable transformation has been effected. Now we have large flowers of delightful form and almost endless colouring freely produced by vigorous plants. The illustration on the next page shows a house of some of Messrs. Sutton's latest triumphs with the Chinese Primula. Here are colours and shades of colour that must surely please the most fastidious, while those who prefer a more graceful plant need but peep into the adjoining house, and they will see the lovely Star Primulas, their elegant stellate blossoms opening gracefully in tier above tier from the uprising stem. At Reading one realises what a host in itself the Primula is in its various forms; there is so great a variety that one might grow a houseful of them and find it to contain more of interest and attraction than a collection of miscellaneous plants. And how accommodating, too, is this favourite plant. One would hardly credit the statement, if one were not assured of its verity, that practically all

Messrs. Sutton's Primulas, of which those shown in the illustration are typical plants, are only five and six months old, grown from seed sown in August and September last. What other plant would make such a display at this season of the year within so short a time from the sowing of the seed? I know of none. Consider with this that the Primula needs little artificial heat for its cultivation, and one must admit that it is an ideal greenhouse flower for early spring. If one wishes to have larger plants, it is, of course, necessary to sow seed earlier in the year. To have them so finely in flower within such a short time says a good deal for the skilful treatment they receive at Reading, but they are an object-lesson, and show what can be done.

One of the finest Primulas at Reading is *The Duchess*, raised by Messrs. Sutton and Sons a few years ago. It is a strikingly handsome Primula, and peculiarly attractive. I say "peculiarly" advisedly, for in all other types of the Chinese Primula, if the flower is coloured, the centre is paler than the margin, or, in other words, the colouring deepens towards the edge of the flower. In *The Duchess* Primula the reverse is the case, for the rich rose colouring clusters round the eye, or centre, of the bloom, and renders it especially attractive, although at first one may be unable exactly to locate or define the attraction. The *Duchess* is thought so highly of by Messrs. Sutton and Sons that they are now using it largely as a parent for crosses fertilising, and soon we may be able to obtain a series of Primulas in a variety of colours known as *The Duchess* strain.

*Crimson King*, the darkest of all Primulas, is a general favourite, perhaps because its warm crimson colouring calls to mind the old *Clove Carnation*, and that it comes early into flower and lasts in beauty a long time. The lovely white flowers of *Pearl*, a favourite for twenty years or more, are almost as familiar in the greenhouse as *Daisies* on the lawn, and are as welcome to gardeners in spring as *Daisies* to children in summer.

*Reading Blue*, so far the bluest of blue Primulas, and *Cambridge Blue*, a flower that is true to its name, are so distinct from the white and shades of red and crimson and carmine that everyone should grow them. To exhaust the list of varieties would take much time and space. There are Fern-leaved and round-leaved, white and coloured, single and double, giant and those of moderate size. All are gathered together in Sutton's Reading trial grounds, where they fill house after house, lovely masses of rich colouring and pleasant greenery.

But what shall we say of the Star Primulas, which combine many of the bright colours of the large-flowered sorts with a habit of growth that makes each plant a model of grace and elegant beauty? And how long they remain in flower! Before one tier of blossoms has faded another appears from the lengthening stem, in its turn to be succeeded by others; and so this merry life goes on, never flowerless from the opening of the first to the closing of the last fair bloom. Charmed as we were with all the lovely varieties of the star-flowered Primula, we admired none so much as *Ruby Star*, a name well chosen, for surely none other could so fittingly describe this flower. It is ruby red, either in the sun's bright rays, or in that colder, artificial light that often plays unkindly game with colours. The *Blue Star* Primula has flowers of a delicate porcelain blue, which seem to accentuate the elegance of the plant; arrange it with *White Star* or *White Queen Star* and you have an association not to be surpassed for clear and tender colouring among Primulas, and possibly not among other greenhouse plants.

To appraise the Cyclamen at its true value one must see plants of a good strain well grown, a strain such as Sutton's *Butterfly*, whose pure white flowers arise in the greatest profusion above prettily-marked foliage, each plant forming an object that compels admiration, while a group of them makes a picture that is more readily appreciated than it is easy to describe. The *Butterfly*



MESSRS. SUTTON AND SONS' CHINESE PRIMULAS AT READING.

strain does not produce such large flowers as the Giant Cyclamen, but as if to make up for lack of size they push forth in almost extravagant profusion. Cyclamen Vulcan blooms as freely as the White Butterfly, and makes an admirable companion to it; its rich crimson colouring, striking by day, is not less so under artificial light. A peep into the houses where the Cinerarias are grown gave us a glimpse of healthy green leaves almost hiding the flower-pots; these and the Calceolarias, enjoying to the full as much air as the weather would permit, gave promise of a brilliant future.

T.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**N**EW HARDY FLOWER BORDERS, made as advised in THE GARDEN of January 13, will have settled by now, and may be forked over and levelled. Now is a good time to divide and plant many herbaceous plants. I do not advise filling the borders with plants at the outset, but would rather do so by degrees, choosing the most suitable time for the removal and division of the particular class of plants with which you wish to furnish the border.

I believe in planting such things as Michaelmas Asters. These are excellent, free-blooming plants, suitable alike for large or small borders, as, from the very large number of species and varieties, dwarf, medium, or tall, large and small flowered, they are specially adapted for brightening the borders in autumn. The varieties of *Novæ Angliæ* and the tallest of *Novæ Belgii* should be planted at the back, the light, graceful, small-flowered kinds occupying positions nearer the front of the border. *Acris*, all the cordifolius varieties, diffusus, horizontalis, ericoides, *Linosyris*, multiflorus, *Shortii*, and *vimineus* are some of the prettiest, whilst all the *Amellus* section, especially *Riverslea*, are desirable for

their compact habit and fine, violet-coloured flowers. Plant

*HELIANTHUS* in variety, *Helenium autumnale grandiflorum* and *grandicephalum striatum*, *Heliopsis*, and *Kniphofias*, of which *J. Benary* is one of the best for the back of the border. The colour is exceptionally bright, while for a group in the front *Kniphofia Nelsonii* is quite the best. Plant also late *Phloxes* and the other autumn-flowering plants. Endeavour to make groups by using several plants rather than dot them all over the border. Avoid a repetition of the same plant.

**TIME TO PLANT.**—Of course, it is obvious in the case of new plants, also where one has to purchase a collection of herbaceous plants, that the months of March and September are the best for planting the respective kinds. Still, where one has a good collection, and it is a matter of increasing the stock and planting up new borders, or renovating old ones, the most natural time to move and divide almost all herbaceous plants is directly after the flowering, as simultaneously with the fading of the flower and decay of the stalks new roots are being formed to build up crowns for the next year's flowering. Do not hesitate to divide and replant any spring or summer flowering herbaceous plants directly after the flowering period. By planting only the autumn-flowering plants now, free use may be made of many early-flowering annuals, to be replaced by bulbous plants, such as English and Spanish *Irises*, *Tulips*, *Scillas*, &c., leaving plenty of spaces to be filled with the various herbaceous plants in due course.

**GLADIOLUS AND HYACINTHUS CANDICANS** may also be used freely, as herbaceous plants can be put in amongst them without disturbing the bulbs. By following this system it is easier to get colour arrangements and effects which are far more pleasing than the old arrangement of dotting plants at fixed distances. G. D. DAVISON.

*Westwick Gardens, Norwich.*

### FRUIT GARDEN.

**LABELS.**—It is important to have each fruit tree labelled, unless a complete line or section is occupied by one variety, when, of course, one

label will suffice. One of the most durable labels, combined with neatness, is the Stratford Label; these labels are practically indestructible, and are well adapted for wall trees and bush fruits. They can also be fastened by means of copper wire to standard trees, but care must be taken to prevent the wire becoming tight as the branch develops. Very serviceable home-made labels may be constructed from strips of lead about three-quarters of an inch wide, and the names stamped on them by means of steel types. The types can be had comparatively cheap, and besides the letters numbers might also be procured, to stamp on the year of planting or any other data to be recorded. These home-made labels have the advantage over the first-mentioned for standard trees that when clasped round a branch they will expand with the shoot, and not injure the bark by friction.

**THE ORCHARD HOUSE.**—Where there is sufficient heat at command to keep out frost the trees may now be brought inside. Any pruning in the way of regulating the growths should be attended to, but with established trees in pots very little winter pruning is necessary. The trees should be carefully washed over with soapy water (unless they have previously been sprayed with the caustic solution recommended in an earlier calendar). Also wash the pots and see that the drainage is clear. It may be necessary to renew the drainage with clean crocks. A thorough soaking with lime water previous to turning them out of the pots will bring any worms to the surface. When arranging the trees in the houses, any that are considered firmly pot-bound may be dropped into clean empty pots just large enough to receive them. Let each pot be placed on two bricks or tiles, leaving a space between the bricks for the free outlet of water. Do not start with a high temperature; merely guard against frost to begin with, and admit air freely as the temperature rises during the day. The trees should be syringed daily, or even twice on bright days, except when the trees are in flower.

**THINNING GRAPES.**—The early Grapes are now ready for thinning; to thin Grapes well requires a lot of practice. Different varieties require

different treatment, but the general principles may be set down as follows: Free-setting kinds may be thinned as soon as the berries approach the size of No. 1 shot; shy-setting kinds, such as Muscat of Alexandria, Black Morocco, Alnwick Seedling, and some others, should be allowed to get a little more advanced; and those properly fertilised can be distinguished by their quicker growth. The smaller should all be removed, being stoneless berries, which do not take on the second swelling. Uneven size in berries detracts very much from the appearance of a bunch. A properly-thinned bunch of Grapes should contain as many evenly-sized berries as will form a compact cluster when ripe. As Grapes should never be touched by the hand when thinning, the operator should begin at the point and work upwards, holding the bunch steady by means of a small stick. Grapes in flower, especially shy setters, should be assisted by means of a camel-hair brush, using foreign pollen, of which there is none better than that of the Black Hamburgh; maintain a free circulation of air, and give atmospheric moisture in moderation on bright days.

THOMAS WILSON.

Glamis Castle Gardens, Glamis, N.B.

## ORCHIDS.

**SHADING ORCHIDS**—With the increasing sunshine it is now necessary to lower the blinds over *Odontoglossums* in order to maintain an even temperature. Whenever the temperature rises to 60° through the action of the sun, the blinds should be lowered. It will also be necessary to shade the soft-growing species, such as *Phalenopsis*, *Cypripediums*, and the newly-potted *Miltonias*, *Vandas*, *Aerides*, *Angraecums*, &c., from direct sunlight. *Cattleyas* will stand more sun than the above-named species; but even these should be examined when the sun is very bright, and if the leaves feel at all hot it is necessary to shade them. Although shading is necessary at this time of the year, it should be done with discretion; the blinds should never be allowed to remain down when the sun is not shining. Bright days now are usually followed by frosty nights, so it is advisable to pull the blinds up early in the afternoon and close the top ventilators, to allow the temperature to rise a few degrees above the maximum, and thus avoid any excess of artificial heat. With this natural rise of temperature and the lengthening days, the conditions generally become more favourable to plant life, and many Orchids which take a long rest during the winter months have again started into active growth. Such plants require more moisture at the root and in the atmosphere. Damping down and

**SYRINGING BETWEEN THE POTS** should be done more freely on bright days, but great care should be taken with the watering, because the sun often dries the surface compost, while underneath the compost is sufficiently moist not to need water for another day or so. The secret of successful Orchid culture lies, to a great extent, in the judicious application of water.

**VENTILATION** should be given more freely when the conditions outside are favourable. The top ventilators should be used during mild and calm weather, but great care must be taken to prevent cold draughts reaching the plants. A little air should be admitted through the bottom ventilator at all times now, unless the weather becomes exceptionally cold, in which case they should be closed to avoid excessive fire heat.

**ODONTOGLOSSUMS**—Plants of *Odontoglossums* that were not potted in the autumn will require attention now. The best time to repot them is when the new growths are from 1 inch to 2 inches high. Many plants of last year's importation are in this stage of development, and should be repotted if necessary. Pots large enough to give them a shift on should be used, and a good compost in which to grow them is equal parts of Polypodium fibre and sphagnum moss chopped

up together and intermixed with coarse silver sand and finely-broken crock. Pot very firmly, and exercise great care with regard to watering, for if this compost is allowed to get too dry it is necessary to dip the plants in a bucket of water to moisten it thoroughly; on the other hand, when once moistened through it remains in this condition for some considerable time. Many

**SEEDLING CATTLEYSAS**, *Lælio-Cattleyas*, &c., are now producing new roots, and may be repotted without fear of injury. The same compost as advised for *Odontoglossums* suits these plants well. Pot firmly, and keep the last made growth just above the surface. If the material in which they have been grown is at all decayed it is advisable to remove it carefully from the roots and replace with the compost advised.

W. H. PAGE.

Chardwar, Bourton-on-the-Water, Gloucester.

## KITCHEN GARDEN.

**HERBS**—The herb border should claim an important position in the kitchen garden. Perennial sweet herbs to be successfully grown require lifting and transplanting every three or four years. Mint especially should be attended to in this respect, or the stems will become wiry and the leaves very small; if not transplanted a good top-dressing of rich soil should be added without delay. Transplant Tarragon, Thyme, and pot Marjoram. Thyme should be planted rather deeply. Sorrel can be either transplanted or raised from seed; if transplanted, all the flower-stems should be broken out as they appear, or small leaves will result. Sage is easily raised from seed, or increased from cuttings struck in the autumn. Borage is much used for claret cup, and if wanted early seeds should be sown in boxes and placed in a brick heat; the growths will be fit for picking in three or four weeks. Leave a space in the border for herbs that are raised annually from seed, to be sown at the end of the month. The border should have a sunny aspect.

**PARSLEY AND CHERVIL**—A sowing of Parsley may be made if the land is in a suitable condition. Parsley makes a good edging to beds in the kitchen garden, also at the sides of alleys dividing the beds. Chervil can be sown at the same time, choosing a warm corner for the first sowing. Later sowings are better in a cool, shady corner, for Chervil is very apt to run to seed in a hot, dry season.

**BAY LEAVES**—In connexion with herbs a Bay tree (*Laurus nobilis*) should find a place within easy reach of the kitchen garden, as fresh leaves are very often in demand.

**PEAS**—Make successional sowings of Peas. William I. and Exonian are excellent for sowing at this time. Lightly fork the ground if rough; make the drills from 8 inches to 10 inches wide and 3 inches deep. If the ground is still very wet, line the drills with dry soil. Sow thinly, having the drills 6 feet apart for the varieties named; for taller varieties a greater distance should be given. Make a sowing of Spinach midway between the rows.

**ONIONS**—*Ailsa Craig* Onions, if sown in heat in boxes, will require pricking out into other boxes. Use a rich, light soil, and allow a fair amount of room between the Onions. Return the boxes to a gentle heat until the plants are well established, then harden off gradually.

**CARROTS AND TURNIPS**—Make a sowing of Carrots and Turnips in a warm corner in well-worked ground. The Early Horn varieties of Carrot and Early Milan or Early Snowball Turnip are suitable sorts. Sow in drills sufficiently far apart to allow a small hoe being used to stir the soil. A sowing of Radishes can be made at the same time.

**FRENCH BEANS**—Make successional sowings of French Beans under glass for some time to come. Beans succeed well on a mild hot-bed. Keep the syringe well applied to Beans growing in much heat, or red spider will quickly appear.

Continue with batches for forcing of Asparagus, Seakale, &c. Seakale, though lifted, can now be brought on outside in a sunny place by being covered to a sufficient depth with leaves or Cocoanut fibre.

J. JAKUES.

Bryanston Gardens, Blandford

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**HALF-HARDY PLANTS** (*Ethel Kirby*).—The term "raised in heat" means that the seeds must be sown in a warm greenhouse, that is to say, in a greenhouse heated by artificial means. It usually means a temperature of 60° Fahr. "Gentle heat" is understood to mean a house that is only slightly heated, with, say, a temperature of 50° or 55° Fahr. The seeds of half-hardy plants need to be sown in a slightly-heated house. You might raise the seeds of half-hardy annuals in your room window, but they would have to be moved as soon as they pushed through the soil, for the seedlings would not grow at all satisfactorily in such a position. You would do well to get a small frame, in which you could sow seed of some half-hardy annuals, provided you kept it well covered up at night with mats to protect from frost. It is almost useless to try to grow seedlings in an ordinary window; they would become drawn and weak if left there for any length of time. Sweet Peas are quite hardy; in order to have them in flower early they should be sown in September, and they will pass through the winter quite safely if you earth them up a little. See an article in this week's GARDEN on early Sweet Peas.

**SMALL GARDEN** (*F. R.*).—Why not grow some climbing Roses over the grass path? To do this, put in some poles on either side about 7 feet out of the ground, and connect them with cross pieces; dig out a hole 2 feet wide and 2 feet deep at the foot of each pole, well breaking up the soil, and putting a little manure at the bottom of the hole. Two excellent Roses are *Reine Olga de Wurtemberg* (red) and *Mme. Alfred Carrière* (white), or, if you prefer, plant the red Rose on one side and *Clematis Jackmanni* on the other. There is no reason why you should not make a small border for dwarf Roses on each side of the grass path, planting *Griis* an *Teplitz*, *Mme. Abel Chatenay*, *Caroline Testout*, and *Ulrich Brunner*, all of which are strong-growing, free-flowering Roses. You do not say whether the perennial plants you have are planted together in a border, but if not they ought to be; you seem to have a good selection. You should grow a few annuals; for instance, the Rose Mallow, annual *Chrysanthemums*, *Candytuft* and *Linum* (red Flax), all of which are cheap. We should advise you to grow some Sweet Peas in tubs. You should also grow *Lilium umbellatum*, and in the autumn plant Daffodils.



**ANNUALS FOR HALF-SHADY BORDER (D. W., Surrey).**—Good hardy annuals for this purpose are Swan River Daisy (*Brachycome iberidifolia*), Stock-flowered Larkspur, *Clarkia*, *Coreopsis*, *Chrysanthemum*, *Mignonette*, and *Nigella*. If your border is only partially shaded you might hope to grow successfully many annuals. You may sow *Godetia*s out of doors in March with every prospect of success. Of course, if you raised seedlings under glass, giving them more careful treatment, you could get finer plants. The *Tagetes* is a half-hardy annual, therefore you must sow the seed under glass now, planting out the seedlings later on. The annual varieties of *Delphinium*, known as Larkspur, may be sown out of doors in March. Annuals pay for good culture; give them a good soil, allow each plant plenty of room, and you will have twice as many flowers as would be otherwise produced.

**SWEET PEAS IN TUBS (A. R. E.)**—The Sweet Peas grown in tubs are trained to Pea-sticks in the ordinary way. We find that they are equally satisfactory for the plants in tubs as for those in the border. When the Sweet Pea seedlings are quite small, viz., about 2 inches high, we put in all over the tub small twiggly sticks, to which they readily cling. If the large sticks, usually bare at the base, are put in at first the seedlings cannot cling to them satisfactorily, and consequently fall down and may get broken. As soon as they have taken hold of the twiggly pieces of stick we put in the larger ones, to which the Peas soon attach themselves. Another method we saw adopted last year was that of placing Bamboo canes at intervals of about 1 foot around the tub, and connecting each cane with string tied round them. Strings were tied round from top to bottom of the canes, and the plants took hold of them well; but in our opinion the effect was not so good as when the less formal Pea-sticks were used.

**Charles Jones.**—From your description we think the *Begonia* is *B. semperlorens atropurpurea*. If you are able to sow the seeds now in a warm greenhouse and keep them growing freely, finally hardening off and planting out in June, the plants will flower during the summer. You are rather late in starting, and unless you can sow in a warm greenhouse and keep them growing quickly in a frame, the plants will not be large enough and strong enough to make a display this year.

**Tilton.**—The planting of autumn-flowering *Crocuses* may be done any time during the summer months after the foliage has died down, which usually takes place in May or June. The earlier it is performed before the flowering period, the better it is for the bulbs, which have a chance to make roots before pushing up flowers. If possible autumn *Crocuses* should be planted in July in order to have a satisfactory display of flower the same season. *Crocus tomasianus* is a spring-flowering species.

**Wyburnburg.**—Annuals for chalky soil: *Phlox Drummondii*, *Asters*, *Clarkia pulchella*, *Corndriller*, *Godetia*, *Mignonette*, *Sweet Peas*, *Nasturtium*, *Shirley Poppy*, *Nemophila*, *Linum*, *Collinsia bicolor*, and *Coreopsis*. Biennials: *Antirrhinum*,  *Canterbury Belle*, *Sweet Williams*, *Wallflowers*, *Galliardias*, *Pentstemons*, *Dianthus chinensis*, *Meconopsis nepalensis*, (*Eranthis* biennis, *Salvia bicolor*, *Verbascum Chalcidii*, and *Glaucium flavum*). Perennials: *Aquilegia*, *Carnations*, *Delphinium*, *Pinks*, *Gypsophila*, *Pyrethrus*, *Helianthus*, *Veronica subcassilis*, *Michaelmas Daisy*, *Rubbeckia Golden Glow*, *Kniphofias*, and *Chrysanthemum maximum*.

**Freebody.**—If the bank is too steep for ordinary planting, some good effects may be secured by planting the alpine *Pinks*, *Cotoneaster microphylla*, *Helianthemum*, *Zauschneria californica*, the blue and white *Flag Iris*, &c.; or by a special arrangement rather high up you could plant the wickurana *Roses*, *Clematis Jackmanii*, the white and red perennial *Pea*, and other such things to trail down the bank. *Verbascum*, *Centranthus ruber*, and *Poppies* could also be introduced, and in season such things as *Snowdrops*, *Chionodoxa*, *Anemone blanda* and *Colchicum*, and *Daffodils*. Much depends upon the bank itself, however, and not a little upon environment; indeed, it would appear to be a case where advice after viewing the spot would be best.

**G. S.**—If you only wish for a summer display, we know of no plant to equal the tuberous *Begonia* for freedom and continued flowering. These can be had in white, yellow, orange, crimson, and scarlet shades. The tubers may be planted in May in the position desired, or the tubers may be started in pots and planted out early in June. In any case the flowering is continued until frost arrives, when the tubers may be taken up and presently stored away for another year. If you adopt the above you could another year in conjunction therewith plant the site with *Snowdrops*, *Crocuses*, *Narcissus*, or *Tulips*, to be removed after flowering to make room for the *Begonia*. We are not surprised that the *Geraniums* were a failure last year, as these things are too robust and coarse growing for the

purpose named. On the other hand, the *Begonia*s are dwarf and compact, and bloom profusely for weeks in succession.

**Colonel Parsons.**—Perhaps *Achillea Ptarmica*, *The Pearl* would suit you best, but such subjects as *Campanula persicifolia grandiflora*, early-flowering *Chrysanthemum* *Mme. Jolivet*, and a white *Phlox* such as *Mrs. Jenkins* are all good.

## THE GREENHOUSE.

**PLANTING DAHLIAS (Beginner).**—It would not be safe to plant out your *Dahlias* at the end of April, as the least frost would injure the shoots, which are very tender. You should start them into growth in the greenhouse and plant out early in June. You might place them out of doors in some position where they could be protected at night in case of frost by means of canvas or mats placed over a simple staging. This would save your greenhouse space, and providing they were protected in case of frost they would do quite well and could be planted out the end of May or early June. In a sheltered garden we have planted the tubers out directly into the border in April, and the plants have done well, but if you do this you run a considerable risk.

**CACTUS SEEDS (J. E. S.)**—The seeds should be sown as soon as received in pans filled with light sandy soil. When the seedlings come through, and have grown large enough to handle, prick them out very carefully in a large box filled with sandy soil, putting this in a sunny position near the glass; shade them for a few days until they have rooted into the fresh soil. The temperature of your greenhouse is just what is required by these plants. Cacti require very careful watering. They are natives of hot, dry desert regions, and of a succulent nature; they therefore require far less water than ordinary plants, and grow much better if the soil is kept somewhat dry. During the summer they will, of course, need a fair amount of water, but during the winter very little is required. Then they will go for weeks without requiring water. When the seedlings are large enough to put into separate pots, use small pots only; they dislike nothing more than too much soil, but delight in a sunny position.

**SCHIZANTHUS (H. Hall).**—The young seedling plants of *Schizanthus* as soon as they can be conveniently handled should be pricked off into pans or boxes, using a compost made up of loam, leaf-mould, and sand. When large enough they must be potted singly into small pots, using the same kind of soil as before. The next shift should be into pots 5 in. in diameter, when the compost may consist of two parts loam, to one part each of leaf-mould and well-decayed cow manure, with a little sand. The plants should be given a good light position in the greenhouse, but it is better to keep them close for a few days after potting off, till the new roots take possession of the soil. As the plants develop they need plenty of air in order to encourage a sturdy habit of growth, and as the pots get full of roots a little liquid manure occasionally will be beneficial. For early flowering the usual practice is to sow the seed in July or August, keep the plants in small pots in a cool house during the winter, and shift them into their flowering pots early in the year. They will bloom in about four months from seed.

**Joseph H. Welch.**—Gout is, as far as we know, not infectious; but as many diseases of *Carnations* quickly spread, the better way will be to burn your plants, as being in a sickly state they are very likely to fall a prey to rust and give great trouble.

**J. G. W.**—There must have been some local cause to account for the plants of your *Cinerarias* losing their leaves and flower-spikes as they did; therefore we cannot say with any certainty what the cause was. There may have been too much manure in the soil, or you may have watered with too strong liquid manure. The roots may have been allowed to suffer from want of water, or they may have been over-watered, or the temperature in the house may have been too high. You say that they were not attacked by green fly; but are you sure that red spider is not the cause of the flowers and leaves falling off in this way? Red spider is a minute and insidious insect pest, and often does a great deal of harm before it is discovered. If you could send us part of a specimen we might be able to determine the cause of the failure.

**A. C.**—The *Marguerites* should be cut back now as soon as possible, and the young growing points of the shoots will strike root readily if they are taken off at a length of about 2 inches, inserted as cuttings into well-drained pots of sandy soil, and placed in a close propagating case in a gentle heat. Failing a propagating case, put them in the closest part of the greenhouse, and shade with a newspaper during bright sunshine. The best time to clip *Holly hedges* is in late August or the first half of September, as they then make a short growth before winter.

**A. H. Rydon.**—The *Plumbago* should, after flowering, be cut back, say, 8 inches or 9 inches from the pot, and by occasional syringing encouraged to break out into growth; then, when the young shoots are about half an inch in length, it must be repotted in a mixture of loam, leaf-mould or peat, and sand. Throughout the summer a warm greenhouse or intermediate house is the best place for this plant, but, failing such a structure, it may be grown in the coolest part of the stove. Like the other occupants of that structure, it needs to be shaded from the sun during the summer. As the pots get full of roots a little weak root water occasionally is helpful, but it must not be carried to excess.

## ROSE GARDEN.

**POSTS FOR CLIMBING ROSES (Ignorant).**—It is much the best plan to place the posts in position before planting the *Roses*, but as your plants have been planted a year you can, of course, put in some posts for them. You must be very careful not to disturb the roots of the *Roses*, for the season is advancing, and roots will be active very soon. As you propose tarring the posts, we think it would be advisable to place some broken bricks around the tarred part, on the side at least where the roots are likely to come in contact with the tarred ends. By so doing you also assist in the preservation of the posts. If you happen to have some large drain pipes at hand, it would be a good plan to utilise them by standing them on end and letting the ends of the posts into the pipes. This has been found a capital way to preserve the posts from early decay. German *Iris* would assuredly benefit from a light mulching of cow manure, and the best time to give this would be now. Peat moss litter from the stables would also be good if you could obtain this more readily.

**PRUNING CLIMBING ROSES (E. M. F.)**—The Climbing Tea and Rambler *Roses* will never give satisfaction if you plant them simply in the turf. You should make a fairly large hole for each plant, digging the soil thoroughly quite 2 feet deep, placing some manure near the bottom of the hole. Do not place the *Roses* directly on the manure, but cover the latter with sufficient soil to enable the *Roses* to be planted at their proper depth. You must not replace the turves on the top, but must leave it bare. If you dislike the appearance of the bare soil you might plant *Violas* or some dwarf annuals, which would make a pretty covering during the summer months. With reference to pruning the Climbing *Roses*, if they are plants with several strong growths you might leave, say, two on each plant, cutting the others down to within 6 inches or so of the base, cutting back the two shoots left after they have flowered. The only reason for leaving the two shoots would be to give you a little flower this year, instead of your having to wait until next season. Unless the shoots are really good strong ones and well ripened it is of no use leaving them. Those which are withered must certainly be cut back. If the plants have only two or three shoots of moderate strength, your best plan will be to cut them all down. This will induce strong growths to throw up from the base, which will give you plenty of flower in the following season. Although it seems rather a pity to have to cut back the long growths of newly-planted *Roses*, it is the wisest thing to do, and results in the production of much stronger growth. If, however, you are very anxious to have a few flowers this year, you might, as we have said, let one or two of the best shoots blossom before cutting them back.

**Croft.**—We know of nothing better than sulphide of potassium for outdoor use as a cure for mildew. If you make a solution of hot soapy water and drop into it some pieces of the sulphide, it will, by well stirring, soon become a bright green. This is best applied by means of a Knapsack Sprayer, that has a fine nozzle such as the "Vermorel," or, if your collection is not a large one, you could wash the affected parts in the solution.

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## MISCELLANEOUS.

**ARTIFICIAL MANURE SAMPLE (J. W.).**—After soaking a desert spoonful of your manure mixture, sample of which you sent, for several hours, we found it dissolved very slowly, and seemed to contain a quantity of matter that was hardly soluble. Still, it might become so very slowly and under the action of the soil. As it so far seems to be slow of action, we should mix it with potting soil for Gloriosa, Begonias, and other plants in the proportion of half a pint per bushel, assuming that the soil was of ordinary potting excellence. The proportion in it of finely crushed bone seemed to be greater than that of steamed bone-flour. Thoroughly mix with the soil that the whole be equally treated.

**SULPHATE OF AMMONIA (J. F. B.).**—The sample of this manure sent shows that although so long in a cellar it has been kept dry, and is consequently in fairly good condition. Only by analysis could it be shown whether there has been any waste of nitrogen, but probably there has been very little. You may safely use it as a top dressing to growing plants or crops at the rate of 5lb. per rod area of ground, strewing it thinly about between rows or plants after growth has begun. It quickly dissolves, hence should always be applied to crops that are growing, and whose roots are active. Either animal manure, or such artificials as superphosphate and kainit previously dug in, should always be used with sulphate of ammonia, as the latter supplies only one ingredient in plants.

**NAMES OF PLANTS—G. S. Jordan.**—*Begonia cuneata*, *folia*.—*G. Simpkins*.—*Odontoglossum pulchellum*.—*J. A. B.*—1, *Waldsteinia fragarioides*; 2, *Polygala chamaebuxus*; 3, *Cistus* sp.; 4, *Pachystima Canbyi*; 5, *Oncocoma echioides*; 6, *Leptophyllum buxifolium*; 7, *Chrysanthemum caucasicum*; 8, *Arenaria tetraquetra*; 9, *Saxifraga aizoon*.—*F. A. L.*—*Samolus* sp.

**NAMES OF FRUITS—W. Phillips (Shropshire).**—Yes, the Apple is Scotch Bridget; sometimes more colour is found on the fruit than on the one received, but the name is correct.—*W. F.*—We believe the Apple to be Red-leaved Pippin, or a seedling from it, as it closely resembles it in appearance and flavour.

## LEGAL POINTS.

**COMPENSATION FOR FRUIT TREES (Farmer).**—Unless the trees were planted with your landlord's consent in writing you cannot claim compensation. If the trees were planted with your landlord's consent you must claim compensation before the determination of the tenancy. You

will be entitled to the fair value of the trees. We cannot assess their value. If you cannot agree with your landlord upon the amount of compensation, the difference must be settled by arbitration. You may find it necessary to employ a surveyor. We assume that you hold under an ordinary agricultural tenancy. If, however, it was agreed in writing that your holding should be let or treated as a market garden, you can claim compensation, notwithstanding that the trees were planted without your landlord's consent.

**GARDENER ABSENTING HIMSELF WITHOUT PERMISSION (J.).**—If a gardener wilfully absents himself for a substantial period without reasonable excuse, his employer can dismiss him without notice. A servant who is dismissed under these circumstances forfeits the wages which he has earned; but it is customary to pay a proportionate part of the wages to the date of dismissal. A weekly servant's time usually begins at the hour when he commences work in the morning and terminates on the evening of the seventh day, including, of course, the day on which he commenced work.

## SOCIETIES.

## GUILDFORD AND DISTRICT GARDENERS' ASSOCIATION.

The Guildford gardeners held their fortnightly meeting on the 20th ult., when Mr. Horace J. Wright, the hon. secretary of the National Sweet Pea Society, gave a very interesting and instructive lecture on Sweet Peas. Mr. F. Cook, the chairman, presided over a well-attended meeting.

**BROUGHTY FERRY HORTICULTURAL ASSOCIATION.** The members of the Broughty Ferry Horticultural Association held their usual monthly meeting at Broughty Ferry on the evening of the 20th ult., when there was a good attendance, presided over by Mr. James Slater. Some interesting exhibits were shown, and a hearty vote of thanks was awarded to Mr. Bell, Corona Gardens, for the splendid *Dendrobium* he exhibited, a similar compliment being accorded for a number of coloured plates of Orchids, exhibited by Mr. William Grant, Fernhall Gardens. The paper for the evening was upon "Orchids

and their Culture," the author being Mr. A. M' Rae of Balnuthie Gardens. It proved a most interesting and valuable one, Mr. M' Rae showing his knowledge not only by the able paper he read, but also by the replies he gave to the questions opened during the after discussion. Mr. M' Rae was heartily thanked for his lecture.

## TORQUAY GARDENERS' ASSOCIATION.

The spring show will be held at the Bath Saloons on the 29th inst., and the Chrysanthemum show on Thursday, November 8. Particulars may be had from Mr. G. Lee, the hon. assistant-secretary, The Lodge, Upton Leigh.

## BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

This society held its usual fortnightly meeting recently, Mr. James Lee presiding over a moderate attendance. The subject for the evening's discussion was "Calceolaria Culture," the paper being given by Mr. Wiggins, a representative of the Newport Gardeners' Association. He described his method of growing them from the time of sowing the seed to the flowering. Potting, watering, composts, and feeding received careful attention at the hands of the lecturer. A good discussion followed, in which Messrs. Wakefield, Bock, Barwell, Shaddick, Jones, Daniels, and Kitley took part. A hearty vote of thanks terminated an enjoyable evening. Mr. Garnish received an award of merit for cut Tulips.

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# THE GARDEN.

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MARCH 10, 1906.

## WALL GARDENING.

**W**ALL GARDENING is one of the most fascinating of all ways of gardening, and one that is gradually becoming more popular. We feel sure that the following practical suggestions will be read with interest. They are the first prize answers to the questions on wall gardening, published in *THE GARDEN* during February.

1. Describe briefly how a wall should be constructed for wall plants.

The kind of wall that is best suited for wall plants is that known as the "dry wall," by which is meant a wall made of rough stones without mortar, and built against a backing of good soil. Such a wall is usually constructed at some place in the garden where a sudden change of level occurs, and may with great advantage take the place of some rough, sloping bank. I have myself constructed such a wall, and the method of procedure was as follows: The line for the wall is marked out half a foot or so from the bank, and a trench taken out to the depth of half a foot. In this trench the first course of stones is placed along the whole length; these should be fairly large, oblong, with a broad, flat base and fairly flat upper surface for the reception of the second course. The stones in the course touch each other, but no mortar is used in the joints. In laying a course it is well to use a trowel for roughly shaping the stones as they come to hand, and, in place of the bricklayer's pile of mortar, to have a pile of soil at hand with which, as far as possible, the joints are filled. When the first course is laid there will be a considerable gap between it and the bank behind; this space is filled with good soil, leaf-mould, and manure, the latter not coming quite as far forward as the stones. In laying the second course, care should be taken that the stones are set somewhat further back than those in the first course; in no case should they overhang. In laying the courses it is important that a fair number of stones should be placed with their long axes at right angles to the line of the wall, with the object of "tying" the wall and so adding to its strength. The space behind this course is again filled up, and the third course laid with similar precautions as to overhanging the course below. In some places considerable ledges may be left, when it is thought that their presence would conduce to the happiness of some particular plant. In this connexion some stress should be laid on the importance of putting in the plants as one builds the wall, as in this way one is enabled to build and dispose the soil according to the needs of the plant, and also to ensure that sufficient soil

is placed about its roots to guide them to the richer soil behind. Each successive course is laid further back than the one below it, and so the wall slopes upwards to the required height. When it is required to construct a wall facing in two directions, the bottom course is laid as described on each side several feet apart, and the intervening space filled up with good material, the second courses laid, and the intervening spaces filled, not forgetting in the courses plenty of "tie" stones; each successive course gradually approximates to its fellow on the other side of the wall, and so the top of the wall is considerably narrower than the base. The aspect of the wall is a matter of considerable importance. East is the best aspect, north is fairly good, while west is the worst.

2. Describe the way the plants should be inserted in both rough stone and brick walls.

In rough stone walls the plants are best inserted as the wall is being built. A joint between two stones is filled with soil and the plant laid along the joint with its root towards—or, if long enough, in—the soil in the middle of the wall. Some fine soil is sprinkled on the roots, and so a train is made leading to the middle of the wall. A flattish stone is then placed on top, and thus the delicate roots shielded from the sun soon track back to find the cool root-run in the middle of the wall, and so the plants are enabled to face sun and frost with impunity. The planting of a brick wall is a more difficult and more unsatisfactory matter. In the construction of such a wall the middle is left hollow and filled with rich soil; holes are left in the brickwork where plants are required. The roots of the plants are in the soil in the middle of the wall, rather below the level of the hole. Such plants as the Cheddar Pink or *Lithospermum prostratum* soon cover up the hole and hang down the front of the wall in curtains. It is a good plan to have the top of the brick wall open, and to plant such things as Carnations, *Cistus*, and *Aubrietia* on it, allowing them to fall over the edge and so clothe the upper part. The foot of the wall can be planted with Ferns or shrubs, such as *Choisya ternata*, *Chimonanthus*, and numerous others which like the shelter of a wall. In other places of the brickwork some of the mortar may be scraped away and seed of *Linaria*, *Corydalis lutea*, *Erinus alpinus*, Wallflowers, Snapdragons, and others sown, as well as the spores of many of the smaller Ferns.

3. Describe the sowing of the seed in the wall. Is it better to plant seedlings or to sow seed, and when is the best time both to plant and sow?

The seed may be sown either when the wall is being made or after it is made. In the first case, a few seeds are laid along one of the vertical fissures between the stones, taking care that there is soil in the joint.

Some fine soil is dusted over the seed, and a stone placed upon the top. The seed must not be sown too far back. When the wall is already made, seed may be dropped into an earthy chink, preferably near a ledge, and lightly covered over with soil. It is, I think, preferable to use seedlings than to sow seed, as with careful planting one can ensure that the roots are in good soil, and the plants soon obtain a firm hold. Many of the plants, however, that adorn our walls are not true perennials, and in these cases it is better to sow seed to keep up the succession. The best time to sow seed is as soon as it is ripe, if it is to be obtained from plants already in the garden; in other cases June is a suitable month. Rock plants seem to suffer least when they are moved early in September, and if planted immediately they obtain a firm hold before the winter; seedlings from seed sown in June may be inserted in the wall in September. The seed of annuals for the wall is best sown at the end of April or beginning of May.

4. Name the most beautiful spring, summer, and autumn-flowering plants for sunny walls.

*Spring*.—*Aubrietia* in variety (of which the best are *purpurea*, *græca*, *Dr. Mules*, and *Leichtlini*), *Alyssum saxatile*, *Arabis alba fl.-pl.*, *Anemone blanda* and *apennina*, *Myosotis* (in variety), *Cotoneaster microphylla*, Tufted Pansies, *Iberis sempervirens*, *Gentiana verna* and *acaulis*, *Arenaria montana*, *Vinca herbacea*, *Cheiranthus Cheiri*, *mutabilis*, and *alpinus*, *Primula Auricula*, *P. rosea*, *P. denticulata*, and *Omphalodes verna*.

*Summer*.—*Campanula alpina*, *turbinata*, *garganica*, *muralis*, and *carpatica*, *Lithospermum prostratum*, dwarf *Antirrhinum*, *Dianthus deltoides*, *alpinus*, *arenarius*, *cæsius* (Cheddar Pink), *dependens*, and *caryophyllus*, *Erysimum marshallianum*, *Saxifraga pyramidalis*, *umbrosa*, *Cymbalaria*, *Wallacei*, *macnabiana*, and *Aizoon*, *Cistus*, *Helianthemum vulgare* (in variety), *Erinus alpinus*, *Linaria alpina*, *pallida*, and *Cymbalaria*, *Hutchinsia alpina*, *Geum reptans*, *Veronica rupestris*, *taurica*, and *prostrata*, *Geranium argenteum*, *Omphalodes linifolia alba* (annual), *Sedum kamtschaticum*, *Asperula odorata*, *Hypericum reptans*, *Aster alpinus*, *Meconopsis cambrica*, *Lysimachia Nummularia*, *Saponaria ocymoides*, and *Cerastium tomentosum*.

*Autumn*.—*Sedum spectabile*, *Cyclamen hederifolium*, *Ruta albiflora*, *Erysimum marshallianum*, *Erigeron alpinus* and *philadelphicum*, *Menziesia polifolia* (purple and white), *Linaria hepaticifolia*, *Phlox reptans* and *canadensis*, *Primula capitata*, *Polygonum vacciniifolium*, *Platystemon californicum* (annual, sown late), *Colchicum autumnale*, and *Corydalis thalictrifolia*.



5. Name the most suitable plants for a shady wall, and those that give best effect in winter.

*For shady wall.*—*Arenaria balearica*, *Aubrietia*, *Alyssum*, *Arabis alba* fl.-pl., *Androsace alpina* and *lanuginosa*, *Arnebia echioides*, *Aquilegia alpina* and *cærulea*, *Tiarella cordifolia*, *Sedum dasyphyllum*, *Cheiranthus*, *Linarias*, *Fritillaria alpina*, *Asplenium*, *Oxalis acetosella*, *Erinus alpinus*, *Ruta*, *Gentiana acaulis*, *Saxifraga lingulata*, *Hart's-tongue Fern*, and *Ramondia pyrenaica*.

The plants that give the best effect in winter are *Berberis*, *Cotoneaster microphylla*, *Arenaria montana*, *Corydalis thalictroides*, *Dianthus caryophyllus* and *D. dependens*, *Arabis alpina variegata*, *Hypericum moserianum*, *Viola*, *Gaultheria procumbens*, *Lavandula*, *Menziesia*, *Rosmarinus officinalis*, the silvery Rockfoils, *Sedums*, *Sempervivums*, and *Cerastium tomentosum*.

6. Describe the way to treat an old mossy wall which it is desired to sow or plant.

In the chinks of the wall soil may be inserted, and small seedlings of *Aubrietia*, *Alyssum*, and double white *Arabis* inserted; *Snappdragons*, *Wallflowers*, and *Catchfly* sown in other chinks; small Ferns planted or their spores mixed with water and squirted from a syringe into the wall. It is well to remove the moss from the immediate neighbourhood of the plants in order to prevent their being overgrown by it. *Linarias* and *Erinus alpinus* may be freely sown in chinks from which the moss has been scraped, and *Wallflowers*, *Lavender*, *Hyssop*, *Yarrow-heads*, *Campanula muralis* and *C. pyramidalis* planted on the top or in the more open places in the wall. *Cheddar Pink* and *Dianthus deltoides* also grow well on mossy walls, and *Ramondia pyrenaica* in the vertical fissures.

7. How should the plants be treated at all seasons?

When the wall is properly planted the plants will require little attention. As the stones do not overhang each other, every drop of rain will trickle down the stones and find its way to the plants inserted in the chinks. It will be necessary in dry summers to water some of the tenderer subjects, and also to prevent coarser-growing plants from overcrowding. Some weeding may be necessary, but this is not likely, as so little soil is used in the joints that weeds are not likely to be troublesome. The blooming season of such plants as *Campanulas* may be prolonged by picking off withered blooms.

W. G. HOWARTH.

Lowood, Hindhead, Haslemere.

## THE EDITOR'S TABLE.

### EARLY RHODODENDRONS OUTDOORS

Mr. G. Reuthe, Keston, Kent, sends us flowering shoots of some early-flowering hardy Rhododendrons, namely, *R. arboreum rubrum*, *R. barbatum*, both crimson sorts, *R. arboreum album*, and *R. arboreum*. They were very showy, and serve to draw attention to a valuable class of early-flowering hardy shrubs.

### SPRING FLOWERS FROM CHARD.

Mr. J. Crook, Forde Abbey Gardens, sends a delightful gathering of spring flowers. Among them were two kinds of *Periwinkle* (*Vinca*) to show how useful the plants are for covering bare spaces, as they bloom so early. The *Iris reticulata* flowers sent were gathered from the open border, also those of *Chionodoxa sardensis* and *Lenten Lily*. We were pleased to see flowers of blue *Primroses* gathered from a sheltered corner, and of the very fragrant winter-

flowering *Honeysuckle* (*Lonicera fragrantissima*). The *Lilies of the Valley* came from crowns grown at Chard, and had from twelve to fifteen "bells" on a spike.

### NARCISSUS MINIMUS.

Mr. C. W. Cowan sends from Dalhousie Castle, Bonnyrigg, Midlothian, flowers of this sweet little *Narcissus* with the following note (February 23): "I send you a few blooms of my favourite *Daffodil 'minimus'*, grown in a shallow pan in a cold frame. The bulbs have been in bloom in the open without any protection for a week or ten days, but the stems are too short to pluck. My friend Mr. Peter Barr resides in a very different climate on the West Coast near sea-level, whereas here we are 250 feet above sea and seven or eight miles from it."

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

March 12.—Annual Meeting of the United Horticultural Provident Society.

March 14.—Sheffield Chrysanthemum Society's Meeting; East Anglian Horticultural Club's Meeting.

March 20.—Royal Horticultural Society's Colonial Fruit Show (three days).

**Royal Horticultural Society's General Examination.**—Intending candidates for the society's annual examination in



MR. W. MARSHALL, V.M.H.

the principles and practice of horticulture, to be held on the 28th inst., are requested to send in their entry forms, with the name of their proposed supervisor, as soon as possible to the Secretary, Royal Horticultural Society, Vincent Square, London, S.W., from whom the syllabus, with entry form attached, may be obtained. Entries cannot be accepted after the 19th inst. If any candidate desires to sit in London for this examination, he must say so on his entry form, and the society will then make arrangements for him to attend at their hall in Vincent Square, Westminster. A scholarship of £25 a year for two years is offered by the Worshipful Company of Gardeners.

**Royal Horticultural Society's School Teachers' Examination.**—The society will hold an examination in cottage and allotment gardening on Wednesday, April 11. This examination is intended for, and will be confined

to, elementary and technical school teachers. Teachers and assistants desiring to sit for the examination should apply at once for a copy of the syllabus to the Secretary, Royal Horticultural Society, Vincent Square, Westminster, S.W.

**The Daffodil Annual.**—I am glad to see the proposal to issue a *Daffodil annual* finds another supporter in the person of your correspondent Mr. G. L. Wilson. As Mr. Goodwin says, in writing to you on the 17th ult., I was, I think, the originator of the idea. Among those in favour of the proposal, besides Mr. Goodwin, are such eminent *Daffodil* men as Mr. E. M. Croasfield of Wrexham, Mr. Charles Dawson of Gulval, and several others. Mr. Engleheart wrote me a very kind but rather deprecatory letter. While admitting that the *Daffodil* was growing in public favour, he said he had followed the fortunes of several such publications, and seen them wane and eventually flicker out; still, I fancy from the tone of his letter that he would lend help if the thing came to a head. I am also told that Mr. Robert Sydenham views the notion of such a publication with favour. But if anything is going to be done this year steps will have to be taken at once. As there is always a certain amount of risk involved in undertakings of this kind, I imagine it would be necessary at the start to form a guarantee fund, but there are many details to be considered, and I shall be very glad to hear from any supporters of the movement, and shall welcome suggestions as to how to set to work.—F. HERBERT CHAPMAN, *Guldeford Lodge, Rye*.

**Mr. W. Marshall, V.M.H.**—Owing to *THE GARDEN* going to press so early we are unable to record the proceedings at the dinner given to Mr. W. Marshall, who this year enters upon the twenty-first year of his chairmanship of the local committee of the Royal Horticultural Society. Mr. Harry J. Veitch occupied the chair, and there was present a large gathering of horticulturists. We shall make further reference to this interesting event next week.

**Queen wasps.**—These pests are making their appearance very early this season, and no time must be lost in dealing with them. They are weak on the wing at present, and can easily be destroyed, and should be, by anyone who has the opportunity of doing so. I have always advocated a vigorous warfare against the queens as the best and safest way of dealing with these pests. All owners of gardens and fruit growers should encourage the children of employees from now up to the end of May to bring in the queens by offering a penny or twopence per queen. Remember that every queen destroyed means a nest of from 500 to 1,000 wasps put out of action before they have had a chance to do any damage. It is a more effective method than leaving them until they have made strong colonies and destroyed pounds' worth of fruit. The wasp is a thief of the lowest order, for he goes well armed when carrying on his nefarious practice, and he does not hesitate to use arms when caught in the act. His hand is against everyone, and it is everybody's bounden duty to do their utmost to exterminate him.—M. T., *The Gardens, Hawley Hill, Blackwater*.

**The Summer Snowflake.**—I was interested in the note by Mr. Fitzherbert on the *Summer Snowflake*. One flower-spike of *Leucojum aestivum* was out in my garden on January 27. That something inherent in the bulb and not the mild winter was the cause of its early flowering is proved by the fact that it is one of several in a group which at present only show their strong, green leaves. It is probably the first time it has flowered, as in 1903 I got these bulbs, and also *L. vernum carpathicum*, from Messrs. Barr, and owing to absence from home they were several weeks out of the ground, and it was not until December of that



A DRY WALL BEFORE IT IS PLANTED, SHOWING HOW THE STONES TIP BACK.

year that I planted them, with little hope of their ever flowering, for the bulbs felt quite soft. However, most of the bulbs of *L. aestivum* flowered the next May and the May following. To my surprise the *L. vernum*, which I thought dead, began to flower last January. The large, single white bells made such a beautiful picture growing next to the Grecian blue *Anemone A. blanda*, in flower at the same time, that I intend to plant more.—  
W. SPURLING.

#### THE CALIFORNIAN WIZARD.

**I**S Mr. Luther Burbank of California a fraud, or is he a good man struggling with adversity in the shape of Press humbug, exaggeration, and lies? With every desire to be fair to him, to give him full credit for whatever he has accomplished as a worker in horticulture, one finds it difficult to avoid losing sight of the real man behind the fulsome mess that journalists, old women, and so-called scientists have plastered about him. We are told that in 1875, when he was twenty-one, he went to California, where he worked first as a jobber, then as a nursery hand "at a beggarly wage," but he managed to save a little money, with

which he secured a small plot of ground and started a nursery "on his own." In ten years he was fairly established, but, not finding it to his liking, in 1893 he gave up the nursery trade and started as a plant-breeder. This, however, did not pay, and "he could see no possible way over the financial obstacles that

confronted him," when his friends secured for him the attention of the Carnegie Institution at Washington, and that led to Mr. Burbank receiving a subvention or grant of 10,000 dollars (£2,000) per year for ten years from the beginning of 1905 to enable him to continue his operations as a breeder of plants.

Now, this is all to the credit of Mr. Luther Burbank, and if he makes the most of the climate of California and of the many plants that undoubtedly would yield good results under the operations of a skilful breeder, he should accomplish a great deal in the course of ten years with £2,000 a year to help him. It is also to the credit of the Carnegie Institution that work of this character should be encouraged so handsomely. All horticulturists will watch with interest and some expectation the work and output from the Santa Rosa Garden and the Sebastopol Farm, although we hesitate to go all the way with the enthusiast who says: "There is no other

enterprise in the world by which this may be measured. It stands alone, unique among movements for practical and scientific betterment. The scope of its possibilities lies out beyond the sweep of the imagination. The Carnegie Institution, in granting this subvention to Mr. Burbank, has performed a

SNOW IN SUMMER (*GERASTIUM TOMENTOSUM*) IN A DRY WALL.

splendid and substantial service for the world." This is somewhat tall!

If one were to judge him by what some folk have said and written of him, Mr. Luther Burbank is worthy of a monument bigger than St. Paul's. Professor H. de Vries, a Dutch botanist, says: "Burbank is the man who creates *all the novelties* in horticulture." He speaks of "the great success his (Burbank's) creations have made, not only in North America, but also in Europe." To be quite frank, Professor de Vries ought to know better. Burbank is a child, a beginner, a rank outsider among the great plant-breeders of to-day, such as Lemoine, Benary, Vervaine, Duval, Crozy, and Mariac of Continental fame, or Waterer, Veitch, Sander, Charlesworth, Paul, Cannell, Laxton, and Engleheart of our own country. He is a poor imitator of the late Mr. Rivers, a record of whose work among fruits was published in the *Gardeners' Chronicle* about thirty-five years ago. If Mr. Burbank desires to know what Rivers did and how scientifically careful he was, he should consult his Darwin.

Professor Wickson of California says, "The world recognises Mr. Burbank as a great man for what he accomplishes; it is waiting to grant him similar honours for what he thinks." Mr. Osterhout of California says, "In his ability to penetrate behind the facts to the laws which make facts significant, he (Burbank) resembles Darwin." Mr. Harwood says, "No man who has ever lived has laid out such a scheme for the adornment of the world; indeed, it may fairly be stated that not all the plant-breeders who have preceded him have ever done so much to enoble floral life."

Now let us see what Mr. Burbank has actually given us. Acknowledged authorities on plant-breeding in the United States have little to say of Mr. Burbank's work. His admirers crack up his creations among fruits, but the dealers in America ignore them. The flowering plants of his "creation" that "beautify the world" are not known in Europe, or if they have ever got here they have not stood a chance against what we already possessed. The Shasta Daisy is simply *Chrysanthemum maximum*, a Pyrenean plant, and a favourite in English gardens thirty years ago. The labels in Mr. Burbank's flower-beds got mixed somehow, for in no other way can we account for the story that the Shasta Daisy was bred from a New World species. His Gladioli are poor by the side of Kelway's and Lemoine's; his Richardias are a long way behind what has been bred in England; he is a mere beginner with Hippeastrums; he is all behind with Poppies; the Dahlias of his raising would not be looked at a second time by Mr. Cannell; his Lilies, well, they may be hybrids, but they look more like seedling forms of the variable *L. pardalinum*, and certainly they are not improvements on what we had long ago; his Blackberries, Plums, Potatoes (worthless mongrels), Potatoes (where are they?)—these and other Burbankian creations so called, appear to be things of no real account. The Rhubarb that our King admired is unknown to his gardener, but an Australian nurseryman claims to have supplied it to Burbank. And the spineless Cactus, what is it? What is its origin? Mr. Burbank has hopes with regard to it, but has anyone who knows anything of the genus *Opuntia* seen it? How does it differ from the spineless sorts that we know

in European gardens? "By their fruits ye shall know them."

We in England claim the right to judge Mr. Burbank, or any other man who is set up as a doer of great things by the things themselves, and not by the booming of his friends and the size of his advertisements. Let those who claim for him the first place among the plant-breeders of the world make an effort to win that place by exhibiting at the International Conference on Plant-Breeding, to be held in England next July, a collection of Mr. Burbank's "creations." If he is working "for the whole world," the British side of it would be pleased to see what progress he has made. Meanwhile we decline to depose our own gods in favour of what we feel compelled to look upon as an image of puff and bluster of American "creation."

## THE ROSE GARDEN.

### HOW TO PRUNE ROSES.

**W**HEN Roses are planted well and pruned intelligently it may safely be said that the two most important points in their cultivation have been attended to. Perhaps I may still further say that the chief detail in the culture of the Rose is the pruning. Columns have been written on the subject, and the National Rose Society have even published a handbook on "Pruning Roses"; still, there remains much doubt in the minds of the great majority of amateurs how best to prune their Roses. I wish to state the matter as simply as possible, so that even the "beginner" may know how to proceed with Rose pruning.

Doubtless the great majority of readers of *THE GARDEN* are non-exhibitors, and grow Roses for garden decoration or to out for the house or to wear. As there is a difference in the manner in which pruning should be done if exhibiting the blooms is one's object, I purpose dealing with this phase of the subject later, and would now take up the matter from the non-exhibitor's point of view.

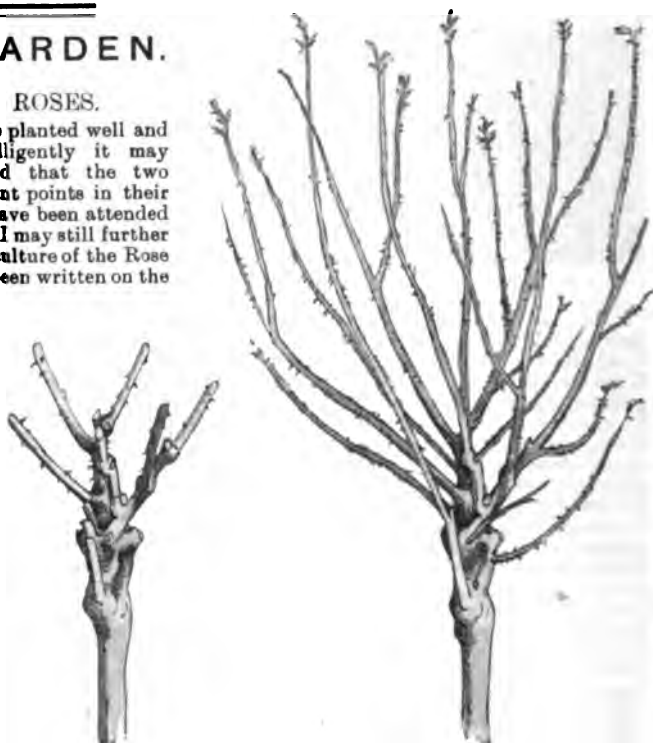
#### WHEN TO PRUNE.

All Roses the first time after planting should be pruned rather severely. The foundation or framework of the plant is thus established. If planted in autumn, prune in March, excepting the Teas, which should be pruned in April. When Roses are planted after January it is advisable to prune before planting. Discard entirely soft, sappy shoots, and only preserve the hard, well-ripened ones. This would apply to all Roses, both for garden and exhibition. Cut back these hard shoots to within about 4 inches to 6 inches of their base. Always prune to an eye or leaf-bud pointing outward. Climbing Roses planted against walls, pillars, or arches, prune back to about 2 feet of their base. Remember we are now referring to the first time of pruning following the planting. Standard and half-standard Roses are treated on the same lines. There is one exception to this hard pruning the first year, and that is when Rambler Roses are planted as lawn plants to grow as free bushes. These need not be pruned at all the first

year. Coming now to the question of established plants, it becomes necessary to deal with each class, commencing with the

#### HYBRID PERPETUALS,

which comprise most of our lovely crimson sweet-scented Roses. There are three distinct grades of growth: Moderate growers, such as Baroness Rothschild; medium, represented by Alfred Colomb; and vigorous, by Ulrich Brunner. The moderate growers cut back to within 3 inches to 4 inches of last year's wood; the medium from 4 inches to 6 inches; and the vigorous from 9 inches to 15 inches. About the middle of March is generally the best time to prune. At the present moment growth is very forward, but we must school ourselves to cut past all this forward growth and only prune to dormant eyes. If we were in a climate where May frosts did not harm us, we might be tempted to leave some of this forward growth for early bloom. Be careful



A STANDARD H. P. ROSE: THE SAME ROSE PRUNED AND UNPRUNED.

to remove all soft, sappy wood. The plants often send up strong shoots late in autumn. These are useless for bloom. Do not hesitate to cut them back hard. We want *solid shoots*, those with more wood than pith. If there is only one such shoot on a plant, some good Roses will be assured. Discard all wood over two years old, and always cut back at least one of the oldest growths quite to the ground each year. This promotes new wood from the base, and thus the youthfulness of the plant is maintained. In some sorts, such as Ulrich Brunner, instead of cutting back all the long shoots, one or two may be bent over arch-like, when they will blossom freely, and may be removed when the blooms are over. In the case of the vigorous growers, thin shoots springing from growths of last year should be pruned back to 3 inches or 4 inches, or even less. P.

(To be continued.)

### HOW TO GROW MARECHAL NIEL ROSES.

THE note by "S. C." in *THE GARDEN* of the 17th ult. reminds me of the methods that were used in Mr. Lowe's nursery at Uxbridge some

fourteen years ago, in the production of blooms of this fine Rose for market. I believe the growing of *Maréchal Niel* has been given up since; but there used to be a large quantity of first-class blooms turned out in those days. The plants were grown in span-roofed houses in the natural soil, a stiff, heavy, yellow loam, with, of course, a due proportion of manure added. Some of the plants were standards, and some were dwarfs, worked on the Briar, and with regard to canker there was little to choose between the two. On the whole, they were all fairly free from it, as far as *Maréchal Niel* can be said to be when grown under glass. The plants were set out at about 10 feet apart, close to the sides of the house, just the same as if they were so many Vines instead of Roses. From the ground to the wall-plate was a distance of about 5 feet, and the plants were grown to this height before being pruned. This was considered the starting point of the plants, and when they had reached it they were trained horizontally along the lower wire until they filled the spaces between them. These growths were only cut back sufficiently the next spring to get rid of the thin and weak parts, leaving the well-ripened and stouter wood. When the plants started into growth the next season shoots were produced from practically every eye, and were trained up the wires about 8 inches apart as they grew. The houses were kept fairly close, with only top air on, and were closed early in the afternoon to keep the temperature up during the night without having recourse to fire-heat. The plants received a heavy syringing both morning and afternoon, and the floors were also damped at mid-day during very dry weather. Under these forcing conditions the growths attained a length of 15 feet to 20 feet in a season. As the autumn approached the houses gradually received more air, and less water was given, until at length they were thrown wide open, both at the top and the sides, remaining like this all through the winter. During the growing season manure water was given at every other watering, and the ground was thoroughly soaked two or three times a week, as *Maréchal Niel* under these conditions can hardly be over-watered, especially if the soil is well drained.

The following spring the unripened ends of the previous season's growth were cut away, and the houses brought on into flower successionally. Then the result of the previous year's work was seen to be such as to repay the time and labour expended. From end to end the long, stout shoots produced blooms at almost every eye, and the quality was first-class throughout. I have counted upwards of sixty-five flowers and buds on a single growth taken at random, and probably there were some that produced considerably more. I remember eighty dozen—practically 1,000—of splendid flowers were out out of one house, and one could hardly see where they had come from. The scent in these houses when they were full of flower was almost overpowering, and I have often smelt them a considerable distance away.

After the flowers were past the growths were all cut back to the base, leaving one or two eyes to produce the shoots for the next season. When these had grown about 1 inch or 2 inches they were disbudded, leaving only sufficient to fill the house as before. *Maréchal Niel* Roses grown under these conditions do not last many years; but where blooms are wanted in quantity it is the best way to grow them. These forcing conditions, however, are not necessary in the majority of places, but with certain modifications, working on the same principle, this beautiful Rose may be grown to perfection.

*Bagshot.*

J. CLARK.

I WAS very pleased to read in *THE GARDEN* a note on the growing of that grand Rose *Maréchal Niel*. I can quite endorse all that "S. O." your correspondent, says about the annual pruning and trees worked on standard Briars. I have seen excellent examples of *Maréchal Niel* Roses grown

in the way described. In making a border, in addition to charcoal I would add a small quantity of crushed bones, about half-inch, and burnt earth, and more especially the latter if the nature of the soil is somewhat heavy and retentive. I have always found cow manure excellent for mulching the borders with. This can be put on about the time the house is started, or a little later when the Roses have made some growth. By so doing the roots receive the goodness from the manure through the frequent waterings which they require during their growing period, and also keeps the border cool and the soil from becoming dry when the Roses are planted near hot-water pipes. Soot water and a dressing of Thompson's Vine Manure are good if given occasionally during their growing season. Mildew is a troublesome pest to the Rose. The best remedy I have found for this is a mixture of paraffin and soft soap, which must be well mixed together so that the paraffin does not float to the top of the water. Syringing the trees with this mixture when fairly hot, choosing a mild evening for the operation. This must not be done when the buds are opening. Another good Rose which responds to exactly the same treatment as *Maréchal Niel* is *Reine Marie Henriette*.

*Catmos Gardens, Oakham.*

S. A. CHEFFINS.

## ORCHIDS.

### A NOTE ON DENDROBIUMS.

**D**ENDROBIUM CURTISII, the subject illustrated, must be classed among the most free-flowering and easiest to grow of all *Dendrobiums*. It is the result of crossing *D. hybrid* *Cassiope* with that beautiful sweet-scented species, *D. aureum*, which is the same as *D. heterocarpum*. The one illustrated differs from most forms of this hybrid by having a very long lip. The petals and sepals are white, the lip also being white with the exception of the plum-coloured centre. It is a variety small cultivators of Orchids should certainly grow; also I would like to recommend *D. Cassiope*. The individual flowers of this are not large, but they are produced most freely, and make fine material for buttonholes and sprays. Often one plant will produce flowers at two or three seasons of the year; in fact, if you have, say, a dozen or so plants there will be few weeks in the year when you cannot get some flowers. Although *D. Curtisii* is very free, it does not produce flowers other than at its proper season, which is January, February, and March.

The culture necessary for these consists in giving plenty of heat and moisture from April till the completion of growth. Great caution in watering is necessary until the new roots have well entered the compost; then water may be applied freely till the new bulbs are formed. Afterwards gradually reduce the quantity of water and lower the temperature. Keep the plants as dry as possible during the months of November and December without causing the bulbs to shrivel. By then the flower-

buds will be developing, when rather more water will be required and a slightly higher temperature; the minimum temperature at any time should not be lower than 55°.

W. P. BOUND.

*Gatton Park Gardens, Reigate.*

## TREES AND SHRUBS.

### THE BUSH HONEYSUCKLES.

**Y**OUR correspondent "A." on page 71, does well to draw attention to the value of the Bush Honeysuckles, as there are few low-growing shrubs more worthy of a position in the mixed shrubbery. When in flower they are always greatly admired, and it is surprising that they should be so seldom seen, either in good private or nursery collections. *Lonicera Morrowii*, as "A." says, is a beautiful shrub, but I think *L. blanco virginale* is better, as the flowers are pure white, and produced even more freely than in the case of *L. Morrowii*. A fine variety is *L. rubriflora*, which has rich rose or red flowers, also produced with great freedom. The shrub we have always grown here as *L. Alberti* has small greyish leaves and deep rose flowers, which lay along the shoots on the upper surface, and are not drooping. This is an ornamental shrub as a bush, but is seen to the best advantage when worked upon a standard of medium length, the drooping habit of the branches being very pleasing. The correct name, according to the "Kew Hand List," is *L. spinosa*. I should be pleased to send "A." some flowering shoots later on.

*Elstree.*

A. E. THATCHER.

THESE include many that are well worth growing in any shrub collection, and as they vary much in stature, are equally available for both large



DENDROBIUM CURTISII.



and small gardens. *Lonicera Morrowii* roses or bells has smaller flowers than the type, but produced in great abundance, and generally before the leaves are much developed. Among the more recent kinds *L. pyrenaica* is excellent, rather dwarf and twiggy in habit, with greyish leaves and creamy flowers produced in abundance during a long period, but I think *L. syringantha* is the most delightful of them all; it is a slender, flexible-branched shrub, with its narrow leaves rather wide apart on the stems and little bunches of rosy lilac flowers with the sweet odour of the Garland Flower (*Daphne Cneorum*), only more so. It can be pinched into a very compact and floriferous bush, or trained full length on a wall where it is distinct from all other wall shrubs. These *Loniceras* vary much in their peculiar characteristics; some are good for their flowers, some for the autumn colour of their leaves, others again for their fruits. Among the latter *L. segreziensis* is one of the best when, as it often is, quite reddened by the abundance of its tiny Red-Currant-little pellucid berries.

Newry.

T. SMITH.

### THE SIBERIAN ELM.

AN interesting but little-known tree is sometimes met with under the above name, and was described by Loudon as *Planera Richardi*, though the accepted botanical title at the present time is *Zelkova crenata*. Probably the finest example in the metropolitan district is that in the Arboretum at Kew, but there are smaller specimens in the gardens, and one well-proportioned tree can be seen near one of the lakes in Victoria Park. In the latter place it seems to have endured the particularly trying atmosphere of East London without injury, and it is also flourishing in a shallow and rather poor soil. The tree is erect and compact in habit in the earlier stages, possessing some resemblance to the Hornbeam. The leaves are small, elliptical or oblong, and the evenly crenated margin gives them a very distinct appearance. It is said to attain a height of 70 feet in West Asia. *Zelkova acuminata* is a more recent introduction from Japan, and rejoices in numerous names, amongst which *Ulmus monumentalis* is conspicuous. It is a rather elegant tree with acuminate leaves, and another of a similar type is *Zelkova Verschoffeltii*, which has neat, evenly-toothed leaves; but I have only seen small specimens of the last-named form.

R. L. C.

### PRUNING LAURELS.

OCTOBER and November are the two months to prune Laurels, yet many defer it until the spring, and then often have to hurry over it as other work more pressing presents itself. Instead of using the knife they fall back upon the garden shears, as the work can be more quickly carried out. This is to be regretted, as banks of Laurel, whether for shelter or hedges, present a much better, also neater, appearance when cut in with a knife, and in doing this the pruner should make quite sure the cut is made close down to a leaf, and not leave 3 inches or 4 inches of bare stem showing until new growth is made in spring. When clipped in with the shears a host of leaves out in half can be noted, which are worse even than the bare stems. Laurels when growing away from trees make considerable growth in a year, and unless attended to annually soon get out of order, beside looking untidy all the season, therefore push on the work while mild weather lasts. A man can do just as much again in genial weather as he can when it is cold. The prunings should be gathered up daily and placed on the smother fire.

J. MAYNE.

### A GOOD TOWN TREE.

(PYRUS LOBATA.)

AN excellent tree for towns is this remarkably interesting *Pyrus*, concerning the origin of which so much confusion appears to exist. It grows

admirably in the London parks, and even in some of the worst situated as regards atmospheric conditions, such, for instance, as Victoria Park in the East End, it appears to flourish regardless of smoke, dust, and all the injurious deposits that affect foliage so detrimentally. The large white flowers produced in May and June are rather scattered, but their size renders them conspicuous, and their characters show that the tree is a close ally of the common Medlar. The leaves are of good size, elliptical in outline, lobed and out, thick and somewhat leathery in texture, and are produced in a peculiar close tufted manner at the ends of the branches, which gives a very distinct appearance readily recognised. The name here given is that adopted at Kew, with G. Nicholson as the authority, and the statement "garden origin?" indicates the uncertainty which prevails, though it has also been described as "a Caucasian Medlar," and Loudon, in describing it under Box's name of *Crataegus lobata*, assigns it a place with *C. flava*, stating that it is supposed to be from America. It has also been known under the names *Crataegus grandiflora* and *Mespilus grandiflora* or *lobata*. It attains the height of about 15 feet, and thrives in almost any soil.

G.

### THE DAHURIAN RHODODENDRON.

(RHODODENDRON DAURICUM.)

LOVERS of early-flowering shrubs would do well to try this pretty species, for although not so showy as many of those which bloom later, it is very charming in early January. It is found scattered over an extensive tract of country, its habitat being given as from Dahuria to Manchuria and Sakhalin, and some variation in character is noticeable in different plants, probably due to its geographical distribution. In height a difference is seen, some plants rarely growing more than 1 foot or so high, while others are from 3 feet to 4 feet in height. Some also are deciduous, while others keep the greater part of their foliage throughout the winter. The flowers, which usually average about 1 inch in diameter, are rosy purple in colour and produced very freely. It has been used by the hybridist, and one of the prettiest of the dwarf early-blooming hybrids, *præcox*, claims it as one parent. To be seen at its best it should be given a cosy sheltered corner, shaded from the early morning sun; there, in peaty soil, it does not fail, in the absence of frost, to make a charming display for several weeks in January. The variety *atrovirens* is evergreen, and bears darker-coloured flowers than the type.

W. DALLIMORE.

### A BEAUTIFUL PURPLE-LEAVED SHRUB.

(PRUNUS CERASIFERA VAR. ATROPURPUREA, P. PISSARDI.)

THIS is one of the best purple-leaved large shrubs we have, especially in autumn, when practically other purple-leaved trees and shrubs lose their colour and turn to a dull greenish hue. The purple Plum, on the contrary, becomes much deeper and brighter as the autumn advances, and has been exceptionally fine here this year. The want of colour this autumn has, perhaps, made this plant more conspicuous, but for several years I have noticed that it becomes brighter and better in the autumn. During the winter its shining purple-black stems have a certain beauty of their own, more especially if seen against a background of glaucous Conifers. In the early spring it is covered with pure white flowers, which open before the leaves appear, and are very pretty for the two or three weeks that they last. The plant can be grown on almost any soil, but a light, moderately dry one suits it best. The growth is then short and vigorous, and the colour is brighter than when it receives better treatment. It is propagated by budding it on the *Myrobella* Plum stock.

Bagshot, Surrey.

J. CLARK.

## THE KITCHEN GARDEN.

### KITCHEN GARDEN EDGINGS.

**P**ERHAPS the rigid economiser of land and labour will whisper, why should we have edgings at all? The crops will be just as good without them—a conclusion that I venture to question, on the ground that persons who are careless in regard to appearances, or what in this instance may be called the frame of the picture, are not in a general way the best of cultivators, for carelessness in regard to trifles soon begets carelessness in larger matters. There are, of course, exceptions, but in regard to private gardens, so far as my own observations extend, I have invariably found the highest cultivation in association with well-kept walks and edgings; but even supposing that was not the fact, a man with any pretension to orderliness must always feel vexed in spirit so long as a kitchen garden is without edgings. It may be that my own notions are too refined, tending as they undoubtedly do in the direction of favouring the maintenance of good edgings, walks, &c., even at the risk of some slight neglect of the vegetable crops, for the probability is that such defect would be hidden by the excellence of the marginal enclosures. In regard to kinds of edgings, there is no question that the various descriptions of tile and stone edgings are the best from a utilitarian point of view, as after they are once fixed no further labour in reference to them is needed; such edgings afford no harbour for slugs and grubs, and they always look neat, but for all that I cannot recommend such edgings, as in my opinion a live edging is much to be preferred to one of either tile or stone; and in spite of the harbour which such edgings afford for slugs, and the clipping required, I pronounce Box to be my especial favourite for kitchen gardens. The labour of keeping it is not nearly so formidable as some make out; it virtually only requires to be trimmed or clipped once a year—any time in June—and with care not to wheel or trample it down, the repairs which such edgings require in a large garden during winter do not take up more than a couple of days. Common Thrift makes an excellent edging, but it harbours slugs even more than Box, and since tiles have come into vogue its use on that account has declined. The labour needed to keep it in order is but little, and as that little can be performed during winter when work is least pressing, any objection to it under this head is not worth considering. The labour here alluded to is the lifting, dividing, and replanting every third year, as in that time some of the plants outrun others in growth and create inequalities. The common and variegated Thymes are both suitable edging plants for kitchen gardens, but, in order to keep them thick and of neat appearance, they must be clipped twice during the summer, i.e., in the middle of May and the middle of July; but the clipping does not take up nearly the time that Box clipping does, and a gap can more readily be made good; yet another advantage is, that Thyme will flourish in soils in which Box will not thrive. The small variegated *Euonymus radicans* I have seen used on a small scale, and right well it looked—so well, in fact, that I have a strong desire for an opportunity to plant such an edging, though,

by the way, it was cuttings, not plants, with which the edging was first formed, and which as soon as they had rooted and had made 4 inches of new growth had their points taken out to induce the formation of side or lateral growths; afterwards the plants were treated in every way the same as Box. The fine, wiry Grass called *Festuca glauca* I have tried as an edging on a small scale, and it did very well in damp and shaded positions; but on dry ground and exposed to the sun it was a failure, being like so much dried-up Grass that was only fit for the fire. I would only recommend it as an edging for heavy

### THREE GOOD EARLY CABBAGES.

Few vegetables are more welcome on the majority of tables, in the early spring, than the first cuttings of nicely-hearted Cabbages; and to have them early and plentiful is worth a good deal of trouble. The time to sow, and the time to plant out in the autumn, can only be determined by experience on the spot, as the nature of the locality makes a great difference; what would be just right in one place might be all wrong in another. Here, in the South of Ireland, I usually make two sowings, one about July 25, and another about August 18. The July sowing always gives the most robust plants, and the earliest hearts the following spring. The varieties grown for

spring supplies have more to do with success than most people imagine. For many years I have grown, side by side with many other varieties, April, Imperial, and Flower of Spring, and I think the trio would be hard to beat for earliness and quality. From a sowing made on July 27, and planted out on September 20 last year, we have been able to cut, since January 25, beautiful little heads of April, firm and sweet, while Imperial and Flower of Spring are now fast turning in the order named. April (Sutton's) seems to improve in earliness every year, as this is by far the earliest I have ever seen it fit for use.

JOHN WILLIAMS.

Tramore.

### GOLDEN TOMATOES.

I WAS more than pleased to see your able correspondent E. Beckett advocating the claims of the yellow or golden Tomato in your issue of the 24th ult. I have grown a deep amber-coloured variety for the last four years (brought home from Bermuda), and since their introduction here no red or crimson varieties are grown, except for cooking or colouring. The flavour of the former is far superior

to the latter. For dessert they are excellent. I quite agree with your correspondent that prejudice is one of the chief causes of their not being more generally grown.

F. W. RICH.

The Gardens, Eldfordleigh, Plympton, S. Devon.

### TOMATO SUTTON'S CASCADE.

THIS is a beautiful variety, and where room can be found under glass it should most certainly be grown, either for training up the rafters of house columns or as pyramids in pots. The long racemes of brilliant-coloured fruits, from 20 inches to 30 inches in length, are most conspicuous. It will also prove of great value for exhibition in ornamental collections of vegetables. Seeds

should be sown at once, and the plants ought to be liberally treated, as the stronger and more sturdy these are the finer will be the display.

E. Beckett.

E. BECKETT.

## THE FLOWER GARDEN.

### MARGUERITE CARNATIONS.

CARNATIONS of the Marguerite group represent a new race, obtained apparently by crossing an early-flowering type with *Dianthus chinensis* (the Indian Pink). It is practically an annual, though in a favourable season the plant may reveal something of a biennial character. Certainly they should be in the town garden, as they will begin to flower within six months of sowing the seed, and this is a brief space to wait for flowers so sweet in perfume and rich in colouring. Sow the seed in February and March, pot on the seedlings when this is necessary, and gradually harden them off so that they may be placed out of doors in April or May. The flowers will appear about August. They may be either planted out in the border or kept through the summer in pots. The finest flowers come from pot culture, but, of course, when growing the plants in this way close attention is needful to watering. If the plants are lifted from the garden borders and brought into a warm greenhouse they will continue to bloom more or less until Christmas, the degree of success depending greatly upon the weather and the attention they receive. Weekly applications of guano water are a great help to their continued flowering.

If seed is sown in autumn the plants will bloom the following spring; thus by sowing seed in spring for flowers in autumn, sowing seed in April or propagating by layers (border varieties) in July and August for flowers the following summer, and by sowing seed in autumn for blooms for next spring, it is possible to have Carnation flowers almost or quite the whole year. Mr. A. Hemsley writes as follows of the Marguerite Carnation: "This is a very distinct and useful class, but there has been some misconception regarding its origin. In the first place, it certainly appears to be more related to the Indian Pinks (*Dianthus chinensis*) than to our ordinary Carnations (*Dianthus caryophyllus*). This is only a detail, yet it is important to understand that they are far better when treated as annuals; and by sowing seeds at various intervals a succession of flowering plants may be had, if not wanted for seed. As soon as flowering is over they may be thrown away to make room for others; this is more satisfactory than keeping the old plants over, or trying to propagate from cuttings.

Marguerite Carnations have frequently been recommended for cutting, and if cut before the flowers are fully expanded they may last fairly well; but as soon as the anthers burst the flowers are fertilised and the petals die off. I have found this when fertilising ordinary border Carnations. If the flowers go off quickly, good seed-pods may be expected. The variety Miss Joliffe has always failed to seed with me, and in this the flowers last much longer than with any that seed freely. The Marguerite Carnations certainly make very good pot plants. If a good strain is secured, the flowers will be quite double for the most part. In a batch of seedlings, some of the straggling flowers (if there are any) may be weeded out when potting on the young plants. The seeds may be sown in January for the earliest batch, and any time onwards to the end of April, and a sowing early in August will give good plants for early spring flowering. The seeds may be sown in good loam with a little sand added.

The seeds should be sown thinly, otherwise the seedlings will be liable to damp off. The seed pots should be placed in a light position; if kept moist it will do no harm for the sun to come



MARGUERITE CARNATION FLOWERS.

soils where it might be expected to look tidy all the year round. Were it not for the labour of clipping it during the busy summer season, the Japanese Honeysuckle (*Lonicera reticulata aurea*) would be worthy of notice, but the labour needed to keep it properly excludes it from use in this connexion; but it is the perfection of an edging plant for flower-beds, and has no rival as a trailer for drooping over the edges of vases. This exhausts my list of the various permanent edgings for the kitchen garden. There are several others of a more transitory nature, allusion to which I defer.

W.

fully on the pots. They should be potted singly as soon as the seed leaves are well developed. The point is to keep the plants short and sturdy from the start, and for this purpose plenty of light and air are necessary at all times. When potting into larger pots, a liberal addition of manure may be used with the loam and the soil made moderately firm. Liquid manure may be given freely as soon as the flower-buds begin to show. From seed sown in March or April flowering plants may be had in about three months. They give a great variety of colours, some of which are very bright, and they have a pleasant, if not a powerful, perfume. There is no other class of Carnations so easy to cultivate, but I would say again that it is a mistake to class them with the ordinary border or winter-flowering Carnations, and I know that many have been disappointed to find they cannot succeed in keeping the same plants over from year to year. Seeds are produced freely, and by selecting a few of the very best to save the seed from the strain may be much improved; but to keep them true to colour the different colours should be isolated, and each fertilised with its own pollen or with that taken from another of the same shade. Even then there may be considerable variation in the colour of the seedlings, though by persistently fertilising with pollen from the same colour there will be less chance of much variation, and in time the colours may become fixed."

Marguerite Carnations will flower for cutting if the plants are not neglected. Guano or Clay's Manure occasionally sprinkled on the soil is a great help, especially if the ground is poor. It is necessary also to thin out the buds to allow the remaining ones an opportunity of free development.

### CYCLAMEN DAFFODIL.

(NARCISSUS CYCLAMINEUS.)

ONE of the most charming Narcissus in flower now is the Cyclamen Daffodil (*Narcissus cyclamineus*), and the illustration shows its quaint shape, but not, of course, the bright golden colouring. I grow it in a moist, peaty bed, but it does not increase; in fact, is dying out. Will some reader tell me the cause?

NARCISSUS.

### JASMINUM PRIMULINUM.

I NOTICE that Mr. Arthur Goodwin complains of the tenderness of *Jasminum primulinum*. Here, with our complete shelter from the North and East and proximity to the sea, it was, naturally, unharmed. If the November frosts which killed Mr. Goodwin's plant were followed in Worcestershire, as they were in South Devon, by very sunny days, it is no wonder that serious damage was done. I was then staying about seven miles from Plymouth, and in the garden attached to the house I was visiting 17° of frost was registered. The next day was cloudless from the dawn, and the sun shone brilliantly during the whole time it was above the horizon, and it was the sun rather than the amount of frost that did the damage. Many fine plants of *Cordyline australis*, considered perfectly hardy in the South-West, were killed to the ground; bushes of *Cytisus racemosus*, that had endured severer frosts followed by dull days

uninjured, were also killed, as were numerous large bushes of shrubby Veronicas, and in one case *Olearia stellulata*, also usually considered hardy in South Devon and Cornwall. Curiously enough, two plants that might have been expected to succumb sustained no injury. These were *Calceolaria integrifolia*, stated by some writers to be too tender for growing in the open, and the South American *Drimys Winteri*, not a leaf of which was injured. S. W. FITZHERBERT.

Kingwear, South Devon.

### SOWING TEN-WEEK STOCKS TOO EARLY.

WHEN seed-sowing time comes round in spring, we consult our Garden Calendars, and probably, under March 10 or 15, we read: "Among the

sow them under glass early in March. Past experience in both directions has taught me that the April outdoor sowing would give far the sturdier and finer plants. Early sowing in heat is responsible for much damping off, and also for the weak, spindling plants one so often sees.

E. JACEY.

### THE PROPOSED DAFFODIL ANNUAL.

REFERRING to Mr. Goodwin's "Daffodil Notes" in THE GARDEN of the 17th ult., I, for one, should be very glad to see an annual publication dealing with Daffodils. Those of your readers who are members of the Midland Daffodil Society know how welcome and interesting is the annual report of that society's doings, but this is only a report of what takes place at one society's meeting. What one wishes to see is a report of everything interesting that takes place in the Daffodil world each season, with descriptions and photographs of the most striking among the new seedlings, and I hope the very excellent suggestion will be acted upon.

W. A. WATTS.

### SWEET SULTANS.

I CAN endorse all "H." says (page 99) about these lovely annuals, having seen the new varieties mentioned growing in Messrs. Jarman and Co.'s nurseries, Chard, Somerset, and nothing, to my mind, could be more beautiful for decorating, the flowers lasting so well when out. They have also a very sweet scent, and the colours are unique. "H." is, however, a little in error re the award on August 1 at the Royal Horticultural Society's meeting, as the award was given to the strain of four varieties, viz., The Bride, pure white; Bridegroom, light heliotrope; Bridesmaid, canary yellow; and Wedding Bells, deep mauve. The last two, I understand, are not in commerce yet. "H." is quite correct about keeping the blooms free from moisture, as my experience is that they must be kept dry. Care must be taken after sowing the seeds that slugs do not take the young seedlings, as I am told they have a liking for them. H. K.

### ARENARIA GRANDIFLORA.

ONE of the best of June-flowering rock plants is this Sandwort, though scarcely as much grown as its merits deserve. I have had it for a number of years, and find that it thrives on our light soil if provided with a sunny, well-drained

position; but it never lives long, apparently prospering most when given fresh positions and frequent propagation. Here it ripens seed in abundance, which germinates readily if sown in pans in a cold frame. Cuttings, too, if taken off close against the root immediately after the flowering period, strike in the open under a shaded bell-glass. I have found it of the greatest value as an edging, among other rock plants, to a tiled border filled with Tea and Hybrid Tea Roses. Many people seem to imagine that rock plants do not thrive against a tiled edging with the luxuriance that they do in cases where a natural stone edging is employed. This may, perhaps, be true, but I overcome the difficulty by burying pieces



NARCISSUS CYCLAMINEUS.

seeds that should now be sown in a warm greenhouse are Petunias, Tobaccos, Golden Feather, Asters, and Ten-week Stocks." The advice is good with regard to the first named, but I venture to say decidedly bad in respect of the last mentioned. Even in Scotland I have known Stocks sown in the first week of April, and the practice was a general one. Certainly in the South of England April is not too late, and equally certainly the middle of March is too early. Even in a cold frame the middle of March could scarcely be advised, owing to the liability of the young seedlings to damp off. If need be, I would prefer to raise Ten-week Stocks on an outdoor border in mid-April rather than



of sand and limestone close to the tiles, and the illustration shows how successful this method has been. *Arenaria grandiflora* seldom exceeds 3 inches to 4 inches in height, and so free-flowering is it that when in bloom its large white flowers almost completely hide the dark green awl-shaped leafage. It is, I believe, a native of France and of Europe generally.

Kidderminster.

ARTHUR R. GOODWIN.

## THE FRUIT GARDEN.

### THE WICKSON PLUM.

**I**N fruiterers' shops the Wickson Plum, the finest of the Japanese Plums sent from South Africa, is to be seen now. The fruits are delicious to eat, and taste like a luscious yellow English Plum. They are of most attractive appearance, some being yellow, while others are rich red. They are of conical form. The varieties of the Japanese Plum have awakened a wide interest in America. The trees are said to be vigorous, very fruitful, and comparatively free from disease. We have not heard of their being grown in this country. As a soft fruit in the market at this time of year the Wickson Plum is most welcome, but it is doubtful if it will find a wide sale so long as the prices remain as high as they now are.

### THE BLENHEIM ORANGE APPLE.

It is on record that the Blenheim Orange was first cultivated in London nurseries about 1818, but it must have been widely known a good many years before that, for the man (Kempster) who raised it from a pip died more than a century ago. In the earlier half of last century the original tree was growing just outside the walls of Blenheim Park, at Woodstock, Oxon, and was quite a local attraction both in flower and fruit, and we are told that people used to flock from all parts of the country in the early spring to

get scions from it. It is to its early history that it owes the names of Kempster's Pippin, Woodstock Pippin, and Blenheim Pippin.

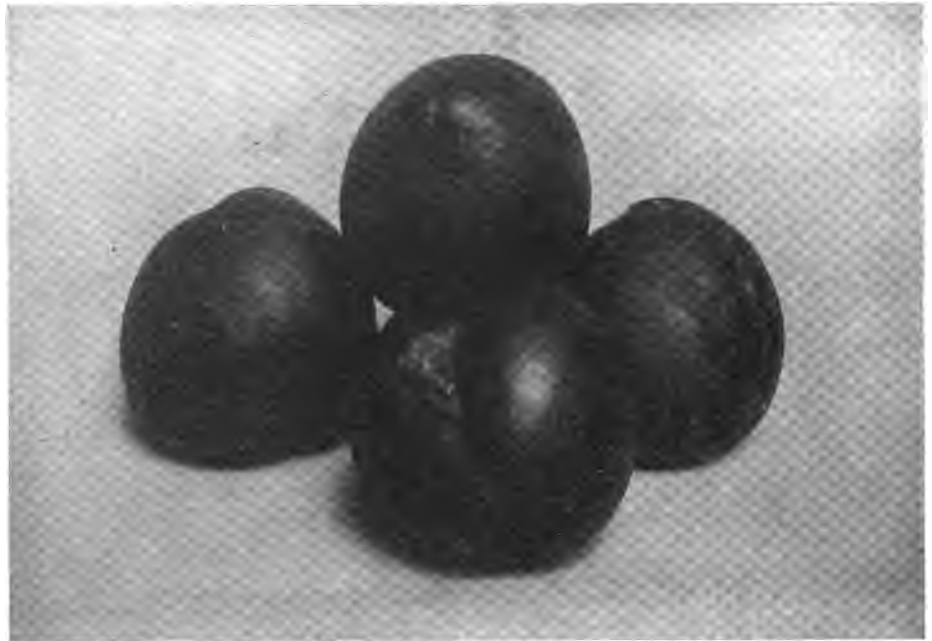
Few Apples are given a more varied character than this, one describing it as only a cooking Apple, and second-rate at that, while another considers it comes next to Cox's Orange. For those who like an Apple which makes a meal of itself, does not bother them with core and pips at the very first bite, and is almost as easy of mastication as a ripe Pear, this is the very one. Its delicious flavour is accompanied by a pleasant acidity, and though it lacks that crispness so much

liked by many, yet it can be obtained in a very brisk, juicy condition if allowed to hang long enough, well stored, and not left to become mealy before it is eaten.

It has been said that there is more than one variety under this name, and I am inclined to agree. I know a garden where there are two bush Apples growing side by side, one of which is unmistakably a Blenheim Orange, with its perfectly round saucer-like depression at the top, and its rough skin, taking on a good colour where it gets the sun. The other, one feels a little doubt about. The fruit is about the same size and shape, but its depression is ribbed, its skin rather smooth and shining, and it seldom takes on any colour; and yet, when one comes to eat it, its flavour leaves no doubt that it is a Blenheim. Whether it is possible for two Apples to have originated so nearly alike, or whether, by the influence of stock and soil, a sport has occurred, I leave others to decide.

When all has been said that can be said about this beautiful fruit, the fact remains that it is one of the worst of all Apples to bear when in a young state. It is no uncommon thing for standards to attain the age of twenty years before producing a peck of fruit, and yet, occasionally, they will bear in less than five. Bushes, too, are often very unsatisfactory, needing much lifting and root pruning to induce even a tardy fertility. It seems as if the wood will not spur until it gets to a certain age. Experiments are being made in working it upon the French Paradise stock, and good results are hoped for from them, the trees having fruited in their third year. The Blenheim Orange makes a spreading bush, and should therefore be given plenty of room. As a standard its place is the orchard or the hedgerow, where a tree in its prime is a fine sight both in flower and fruit. I know of two such trees in an orchard, side by side, whose huge, horizontal branches extend for 15 feet or 20 feet from the trunk, and together they produced nearly fifty bushels of fruit last year. In a garden this variety is quite out of place as a standard, owing to its spreading habit of growth, and no matter how much the lower branches are cut off, those above begin to bear down and take their place with the next heavy crop of fruit, thus shading a great deal of ground.

ALGER PETTS.



THE WICKSON PLUM (ABOUT HALF NATURAL SIZE).

(Photographed from fruits kindly sent by Mr. Rides, Covent Garden).



ARENARIA GRANDIFLORA.



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

## SPRING PROPAGATION OF GERANIUMS (ZONAL PELARGONIUMS).

**A.** A strong, long shoot such as is present on old plants kept growing through the winter, showing modes of detaching and preparation, first, short cutting: *a*, point of detaching; *b*, place of cutting transversely below a joint; *c*, leaf to be cut off at base of petiole, indicated by dotted line; *d*, depth of inserting in soil; second, long cutting: *f*, point of detaching; *f1*, leaves to be removed; *g*, depth of inserting in soil; in either the short or long cutting sufficient wood is left on old plant for pushing new growths. **B.** Strong long cutting inserted singly in 3-inch pot: *h*, drainage; *i*, thin layer of moss; *j*, rougher parts of compost; *k*, soil (old turfy loam three parts, leaf-mould one part, and coarse sand one part); *l*, space for holding water in watering. **C.** Cuttings inserted at side of a 6-inch pot: *m*, drainage (one-fourth to one-third depth of pot); *n*, layer of moss; *o*, rougher parts of compost; *p*, soil; *q*, surfacing about a quarter of an inch of silver sand; *r*, space for holding water in watering. Cuttings, not too sappy, root readily in spring in a warm house (55° to 65°, with 10° to 15° rise from sun-heat), or in a pit or frame on a gentle hot-bed. **D.** Rooted cutting somewhat long between roots and first leaf, showing potting off into 2½-inch pots, and keeping the roots well up: *s*, drainage; *t*, soil; *u*, roots and adhering soil; *v*, space for

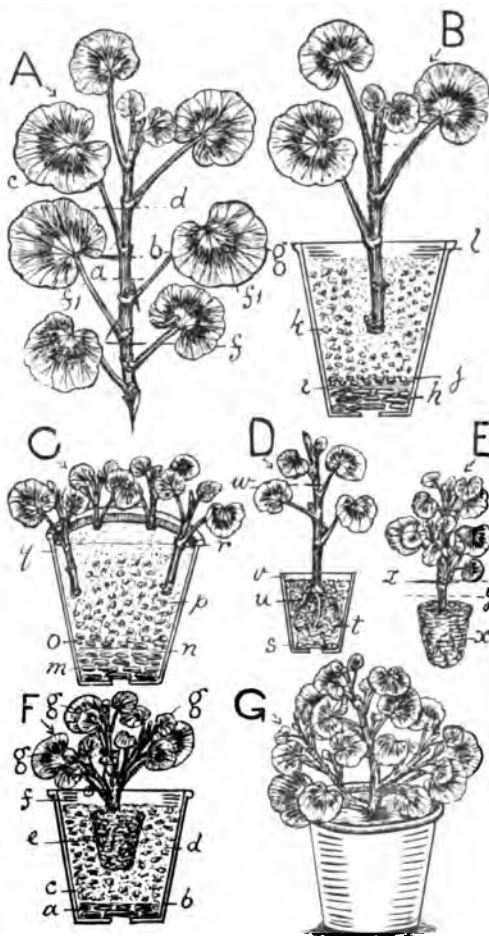
holding water in watering; *w*, point at which plant may be topped to induce bushy habit when established in pot. **E.** Spring-struck cutting plant (**D**) with side shoots and hardened off at planting-out stage: *x*, ball of soil and roots; *y*, desirable depth of planting; *z*, lowest depth of planting (up to lowest leaf or side growth). **F.** Plant from cutting **B** having been stopped at third leaf when rooted, and after pushing new growths shifted into 5-inch pot (shown in section), intention being to grow on for flowering in pot: *a*, drainage; *b*, thin layer of moss; *c*, rougher parts of compost; *d*, soil rather rough, but made firm in potting; *e*, ball of soil and roots; *f*, space for holding water in watering; *g*, young shoots that may be pinched to three good leaves or joints when roots well established in new soil. **G.** Twice stopped plant (**F**) at stage for shifting, if desired, into 7-inch pot, but not usually further stopped unless not sufficiently furnished with growths; then pinch, as before, each vigorous shoot to three good leaves or joints.

*Laying out Small Gardens.*—The style of flower gardening must be dependent on the individual taste of the occupier, but in addition to any summer bedding that may be carried out, there should be room for a good herbaceous border in front of the fence. With regard to garden structures, these are often overdone where the space is limited. In the small garden the pergola is almost invariably out of place. The pergola should be constructed with due regard to its fitness for the position it is to occupy, and should justify itself by forming a connecting link between two points of interest in the garden. In large grounds a fitting site is generally easily procurable, but in a small garden there is no scope or reason for such an erection, and a few arches over which climbing Roses are grown have a far more pleasing effect. One of the foremost desires of the amateur gardener is to grow the queen of flowers, but in the neighbourhood of smoky towns Roses are rarely satisfactory. Hybrid Perpetuals the least of all. Teas, Hybrid Teas, and Chinas are more accommodating, and have a far longer season of bloom. Standard Roses are generally a failure. Again and again one has to endure the sight of miserable specimens with small one-sided heads of straggling shoots, crowned with one or two flowers, borne on gaunt 4-foot-high stems. There can be no pleasure in growing such travesties of *Rosa*. If standards must be grown vigorous kinds should be selected, such as *Gloire de Dijon*, *Mme. Plantier*, or some other summer-blooming variety. These will often form large heads 5 feet or more in diameter; but for the general collection of Roses dwarf plants are far the best. Two forms of gardening that may be successfully undertaken by the possessor of limited ground are

*Rock and Water Gardening.*—As a rule the villa rock garden, or "rockery" as it is termed, appears as though a cartload of stones had been shot out on a heap of earth. Others are constructed of flat stones set at right angles to each other in a steep bank, each pair containing a small pocket of soil, which becomes dust dry in the summer. These inartistic methods of construction cannot be too severely condemned. A rock garden, however small, should have a natural appearance. Large stones half buried in the soil should give the effect of the outcrop of rock on a mountain slope. The soil should be porous, and composed chiefly of peat and loam mixed with a large proportion of rough grit. In this the roots will run freely, and be kept cool in

summer beneath the half-buried stones, while the foliage enjoys the full sunlight. An amateur can easily manage the rock garden entirely unaided, and if he contents himself with the commoner plants, such as the *Arabis*, *Aubrietia*, *Alyssum*, *Iberia*, dwarf *Phloxes*, *Tunica Saxifraga*, and the more vigorous *Saxifrages*, will soon find the outcrops of rock clothed with flower in the spring of the year, while if he is more ambitious he may experiment with the dwarf *Campanulas*, *Androsaces*, *Ethionemas*, *Edelweiss*, *Shortia galacifolia*, *Rimondias*, and a host of other beautiful plants. The little water garden is easily formed by obtaining paraffin casks, sawing these in two, burning them out, so as to remove the oil, and sinking them in the soil. A hole should be dug out of sufficient size to admit of six of these half casks being sunk in it to such a depth that their rims are from 6 inches to 1 foot beneath the surrounding soil. This can then be gently sloped away with the spade, so as to leave the casks in an apparently natural depression in the ground. A foot of soil should be placed in the casks, and one of the best of the hybrid *Water Lilies* planted in each. The spaces between the plants may be filled with sandy peat, and in this water-loving plants may be grown. The casks must be kept filled to the brim with water, which will keep the soil between the casks moist. Wall gardening may be thought to be outside the scope of the dweller in a semi-detached villa or terrace, for when this method of culture is mentioned in the horticultural Press, old walls, or those specially constructed for the purpose of growing plants, are invariably referred to. It is, however, quite possible to grow rock plants on the top of a new wall. In the suburbs of a town the occupier of a small villa has succeeded in covering the top of his outside wall, which is only a few years of age, with a fine collection of alpine. The wall is 5 feet in height, and rather over 1 foot in width, and separates the garden from the public foot-path. As much of the mortar as possible was removed with a cold chisel and gritty soil substituted, and in this numerous rare plants are flourishing, included in which are several *Androsaces* of different species, many dwarf *Campanulas*, *Lewisia rediviva*, the best of the *Saxifrages*, *Edelweiss*, *Erinus alpinus*, a fine assortment of *Linarias*, and many other plants. Small-mesh wire netting to the height of 18 inches has been fixed outside the wall to prevent the flowers being picked by passers-by.—S. W. F.

*Hints about Propagation.*—The ordinary run of soft-wooded plants are easily propagated in sandy soil in pots or boxes in a temperature of 60°, and the sand or soil should be kept generally moist. The cuttings must not be permitted to wilt in the summer, and, as a rule, the more foliage there is left on the cuttings, if the leaves are kept fresh, the sooner the cuttings root. Perhaps one of the most difficult plants to propagate from cuttings is *Luoulia gratissima*, a beautiful winter-flowering greenhouse plant, and unless one has proper conveniences it is better not to attempt it. The proper conveniences in this case are a hot-bed, and a hand-light to place over the pots of cuttings. I have found the cuttings root better under a hand-light than when covered with bell-glasses, and this refers also to other plants difficult to root. I use 5-inch pots, well drained and filled firmly with peat and sand, with a half-inch layer of sand on the top, to be watered and left to drain for a time. The cuttings are the young shoots which can be found growing out of the sides of the flowering shoots, about 2½ inches to 3 inches long. These should be taken off with a heel and inserted thinly round the edges of the



HOW TO INCREASE BEDDING GERANIUMS.

pots, watered with a rose can to settle them, and then partly plunged in the bed, covered with the hand-light, and shaded from bright sunshine. The top of the light should be opened a little every morning to let out damp.

**Fuchsias in the Conservatory.**—Fuchsias make beautiful pot plants, but if one wishes to know what they are capable of doing he should plant a few out in a good bed where they have room to develop. An arch covered with Fuchsias is a thing to be remembered, and Fuchsias with a little pinching and training make perfect pyramids if supported by a single stake in the centre. The pretty little variety *microphylla* will flower all the winter if its roots are in a good border. For winter blooming the plants should be pruned back a little in August. No plants are more easily propagated from cuttings in heat now. Seeds may also be sown.

### THE TOWN GARDEN.

**Bulbs in Fibre.**—Several notes have appeared in THE GARDEN lately about growing bulbs in fibre, so that it is not necessary now to repeat the cultural notes already given. There are only three bulbs in the vase shown in the illustration, yet they produced more than twenty flower-spikes, each bearing five or six flowers; thus from three bulbs (which certainly were very fine ones) over one hundred blooms were produced. The bulbs were not planted in the fibre until the end of November, yet they were in flower in early February. Their fragrant blossoms have been much appreciated. Growing Daffodile, Hyacinths, and other bulbs in fibre is so simple and inexpensive that it is remarkable more do not practise it.

**Hardy Annuals.**—It is now time that hardy annuals should be sown. Many of them produce an abundance of beautiful flowers, and are most useful for filling up spaces between perennial plants that would otherwise very likely remain bare. Nothing detracts more from the appearance of a flower border than patches of soil showing in between. These spaces cannot be more satisfactorily filled than by sowing annual flowers in them. This, however, is not the only use to which they should be put. Although their season of flowering is not so long as that of perennials, they make a most delightful display for some weeks; therefore, when the border is planted some space should be reserved in which to sow annuals. They make a much better show if planted in small groups or masses; in fact, with some of them it is necessary to do this. The individual flowers of most of them are fleeting, so that unless grouped together the display will be a poor one, whereas clumps will produce a succession of flowers for weeks together. One of the showiest annuals for the town garden is the Rose Mallow, which grows about 3 feet high, and bears large, rich, rose-coloured, Mallow-like flowers. The annual *Chrysanthemums*, which may be had in several different varieties, the red Flax (*Linum grandiflorum rubrum*), Candytuft in various colours, *Collinsia* bicolor, annual Larkspur, *Nigella*, *Nemophila*, Marigolds, Virginian Stock, and some of the best varieties of *Nasturtium*, are all suitable. Before sowing, break up the soil 2 inches or 3 inches deep with a trowel or hand fork so as to make it as fine as possible. This must be done so that the seedlings may make rapid and satisfactory growth. Sowing too deeply is a fault responsible for many failures. Some of the seeds of annuals are very small, so small, in fact, that they hardly need covering with soil at all. A sprinkling of sand over them is quite sufficient; if soil is used it should be very finely broken up. Sweet Peas should be sown about 1½ inches deep. In order to grow Sweet Peas well and to have them in flower throughout a long season, the soil must be well broken up, and some manure should be placed at the bottom of



THE CHINESE SACRED NARCISSEUS (*N. tazetta*)  
GROWN IN MOSS FIBRE.

the hole. The Sweet Pea likes a rich and moist soil; if it is poor and quickly gets dry during the summer months, the flowers will be poor and their season will be short. Those who grow Sweet Peas for exhibition dig trenches, half filling them with manure, so that the roots may have plenty of food and moisture during the dry weather. *Mignonette* is an annual indispensable in the town garden, although often it fails to grow satisfactorily; it never grows well on cold, heavy soil, especially if this is not prepared in any way. If the soil is heavy it should be well dug, and some leaf soil should be mixed with it in order to make it lighter and more congenial to the *Mignonette* roots. *Mignonette* should not be sown thickly; even one plant covers a surprising amount of space when fully developed. If it has not space to develop properly it will produce more leaves than flowers. *Mignonette* sown thickly produces a tangled mass of leaves, and proves more of an eyesore than anything else, whereas plants properly thinned out and given sufficient room in which to grow are a source of delight the summer through. In fact, these remarks apply equally well to other annuals. A well-prepared soil and careful thinning out are two matters essential to success with the culture of hardy annuals.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**FLAME NASTURTIUM.**—This most delightful climber, botanically known as *Tropæolum speciosum*, when seen at its best is a sight never forgotten by the lover of flowers. Common in Scotland, where it grows most luxuriantly in a variety of ways, adapting itself to its environments—whether growing up a wall, hedge, or clambering among shrubs—it appears to be natural at home, and thrives without any special culture. In most parts of England this plant has tried the patience and resources of many gardeners. Some, perhaps,

have given up in despair of ever being able to grow it, while to others failure inspires perseverance; they try, and try again, eventually succeeding. It is generally considered to dislike root disturbance. I have not found it so. If I leave it undisturbed for more than two years it invariably dwindles and dies out. It grows most luxuriantly here on a high wall with a north-west aspect; soil specially prepared, or rather collected from the hollows in the woods—the accumulation of leaf deposits, naturally decayed from having lain many years. This, with the addition of a fair quantity of sand and a little wood ashes, constitutes a suitable compost. Dig a trench 2 feet wide from the wall, 18 inches deep, and wheel the soil away for use in some other part of the garden. A few inches of rough stuff should then be placed at the bottom of the trench for drainage.

**FILL THE TRENCH WITH THE PREPARED SOIL** till within 4 inches of the top. Tread lightly and rake level. It is then ready to receive the rhizomes or root-stocks. Pieces about 6 inches or 8 inches long are the most suitable for planting, and should be laid on the surface about 3 inches apart, 1 foot from the wall. Cover with 4 inches of the prepared soil, press lightly, and rake level. Water occasionally, as this plants delights in a moist, cool root-run. On the first appearance of growth the wall may be covered with garden netting, to which the *Tropæolum* will readily cling. If planted now, the surface of the wall—quite 15 feet high—should be covered by August, and will give quite a blaze of colour with its flowers till late in October. By planting a portion every year, allowing none to remain longer than two years, one may have this lovely climber flowering from the middle of June till late in autumn, and, in addition to its flowers, we are charmed by the lovely blue colour of its seeds, especially on the two-year-old plants, a feature almost as attractive as its flowers. If it is desirable to replant where it has been growing for two years, all the old soil must be removed and replaced by new, or the result will be failure.

**CARNATIONS** that were planted in autumn should receive attention. All dead or diseased leaves should be picked off, and everything removed which tends to produce damp or decay. Any plants that have become loosened by frost should have the soil firmly pressed around them. Those wintered in pots should also be watched, or they may sustain injury from slugs. Mice are also often destructive to them at this season. If the weather is mild, Carnation layers that have been protected at the foot of south walls may now be planted out. Pinks propagated last year should also be planted now in the beds in the flower garden, or as edgings or patches on the hardy flower border.

G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**CHYSIS BRACESCENS**, *C. Limminghei*, *C. laevis*, and the hybrid *C. Chelsoni* are now developing their new growths, and should be afforded more water at the root and placed in a light position in the warm house. They produce their flower-spikes simultaneously with the young growth, and for that reason it is better to repot them when they pass out of flower should any require it. *Chysis* are not difficult Orchids to manage; they grow freely in pans without side holes, suspended from the roof in the East Indian house, in a mixture of two-thirds fibrous peat and chopped sphagnum, and one-third good fibrous loam intermixed with finely-broken crock and silver sand. They should be potted moderately firm, and a few pieces of charcoal or large crocks worked in will ensure good drainage. For a few weeks after potting but little water is needed, but when they become established in the new material they require a more generous treatment; and when in full growth they derive benefit from an occasional watering with weak liquid cow manure.

**CATASETUM BUNGEROTHII**, *C. splendens*, *C. macrocarpum*, *C. christyanum*, and many others of the same genus are now advancing their new growth; they are very strong-rooting subjects and require annual repotting. The present is about the time to do them, and like *Chysis* they require a light position in the warm house. *Catasetums* grow freely with us in pans suspended from the roof in the East Indian house. They are potted annually in a mixture of two-thirds fibrous peat, one-third sphagnum moss with a little Oak leaf-soil, small crooks and sand added. Care must be taken to avoid drip or water from the syringe entering the growths until they are forming the bulb as they are very apt to damp. During the growing season they require a copious supply of water and benefit by an occasional watering with weak liquid cow manure, but like the majority of Orchids they should be watered carefully for some time after they have been potted.

**CATTLEYA LABIATA**.—Many of the beautiful autumn flowering section of labiata are now emitting new roots at the base of last season's growths. Should any require repotting or resurfacing the present is a suitable time to attend to them. Plants that were potted last season, in most cases should need but renewal of the surface compost, while others that have grown to the side of the pots or with the compost in which they have been grown in a decayed condition, should be repotted. In the case of plants with only one lead the old pseudo-bulbs should be cut away, leaving two or three behind the lead, and in the case of good varieties, these back bulbs should be placed on the stage underneath the growing plants. There they will soon produce new growths from the dormant eyes at the base, and when they root they may be potted to increase the stock. Pots of a suitable size should be selected for small plants, but for specimen plants pans without side holes are preferable in which to grow them. The receptacle should be half filled with crooks, and a good lasting compost in which to grow them is equal parts of Polypodium fibre and sphagnum moss. Pot firmly, and intermix freely with small crook and coarse silver sand. Before taking the plants to their growing quarters they should be thoroughly cleansed. A soft white scale often attacks them at the base of the pseudo-bulbs, and if this is not checked in time it does much damage to the resting buds. Syringing should be done freely between the pots on bright days, and direct watering at the roots should be done with discretion. W. H. PAGE.

*Chardwar, Bourton-on-the-Water, Gloucester.*

### FRUIT GARDEN.

**PEACH AND NECTARINE UNDER GLASS**.—In the early house the foliage is now fully developed, and may be syringed twice daily during bright weather to keep the leaves clean. Syringe the trees once every fortnight with a weak solution of liquid quassia; this insecticide is very distasteful to aphides, and its effects remain a considerable time on the foliage. Care must be taken not to overcrowd the trees with young growth, retaining only what is required for next year's fruiting and for the necessary extension of the trees. Shoots that are left only for the purpose of inducing a continuous flow of sap to the fruits should be stopped at the third or fourth leaf, and the lateral growths to one leaf. The final thinning of the fruits should be left until after the stoning period, or just when the second swelling begins, leaving one fruit to a square of from 8 inches to 12 inches, according to the age and vigour of the tree. Do not keep the temperature too high until the second swelling is evident, when a brisk heat with moist atmosphere can be maintained, closing the house with sun-heat ranging from 80° to 85°. See that the roots do not suffer from want of water, giving occasional waterings of weak liquid manure. Trees that were started early in January will now have set their fruits; these

may be thinned for the first time, doing it gradually by removing first the smallest and those on the undersides of the branches, and all badly placed fruits. Slight disbudding may also be carried out. Always leave a young growth near the base of a fruit-bearing shoot to take the place of the latter when the pruning and rearranging of the branches are being carried out. Avoid crowding the young growths. Syringing twice daily, unless on dull days, should be resumed as soon as the fruits are set, doing this sufficiently early in the afternoon to ensure the trees being dry before nightfall.

**PEACH TREES** to be in fruit in August and September should now be coming into flower. A fine spray from the syringe applied with considerable force will serve to distribute the pollen; also sharply tapping the trellis in the middle of the day. Keep sufficient moisture in the air by damping paths and borders. Allow as much ventilation as possible, but avoid cold draughts. The latest houses should be kept very cool in order to retard their flowering period, affording a good watering if there is any suspicion of dryness at the roots.

**FORCED STRAWBERRIES**.—Remove the plants upon which the fruits are beginning to colour to a drier and more airy atmosphere. Withhold the application of any further supplies of liquid manure, at the same time do not allow the atmosphere to become too dry, or the plants to suffer from want of water at the roots. The succession plants should have their foliage well syringed twice daily, and applications of weak liquid manure given them while the fruits are swelling. Thin the fruits. All vacant shelves should be kept occupied with succession plants, each of which will require due attention to fertilisation of blooms, thinning, &c. When the fruit is cleared off, if the plants are required for planting out, they should be placed in cold frames to get hardened; if not required they can be emptied out at once.

**FIGS**.—The early trees are now swelling their fruits. Keep a moist atmosphere by damping and syringing, and as the days lengthen the temperature may be raised to 60° at night, rising 10° to 15° degrees during the day.

THOMAS WILSON.

*Glamis Castle Gardens, Glamis, N.B.*

### KITCHEN GARDEN.

**RHUBARB**.—Rhubarb will succeed very well for a number of years without shifting if a good dressing of manure be given early in each year, and lightly forked in; but where roots are lifted for forcing gaps are always made, and then the bed, or a part of it, requires attention. It is not too late to make new Rhubarb beds if necessary. Lift and divide the roots very carefully with a big knife or a spade, so that there is a good bud on each piece. Plant firmly in well-prepared ground, just covering the bud. If it is only a question of patching, make a good-sized hole, and put in a barrowful of well-decayed manure; cover the manure with a little soil before planting the divided root in the hole. Give a good mulch, which is all that is required at present. The "sticks" should not be pulled the first year from newly-planted crowns. Break out all flower-stems as they appear during the growing season. Rhubarb can be raised from seed; sow now in well-worked soil in rows about 2 feet apart, sowing the seeds either in threes, 18 inches apart, or very thinly in the drill. All Rhubarb roots that have been forced should be discarded.

**GLOBE ARTICHOKE**.—The protection placed round stems of Globe Artichokes should be removed by degrees to inure the growths gradually to the weather, as frosts are often rather severe in March. Established plants will require a dressing of well-decayed manure, forking in carefully to avoid breaking the roots. Where new plantations are necessary, and where suckers have been taken off early last autumn and grown in pots for this purpose, they will be ready to go

into their permanent quarters. The ground should be well manured and trenched some time in advance. Plant firmly in rows about 4 feet apart, and 3 feet apart in the rows. Where the ground is not naturally cold and heavy, established crowns may be divided carefully, and planted as recommended for suckers. Give a good mulch for protection to newly-planted artichokes.

**JERUSALEM ARTICHOKE** should be planted now. Choose a situation where the tall growths will not shade other crops, and also, if possible, where they will not be at the mercy of rough winds. Plant in rows 3 feet apart, 2 feet apart in the rows, and 3 inches deep. Of varieties of Jerusalem Artichokes I think Sutton's White the best.

**AUTUMN-SOWN CAULIFLOWERS**, wintered in cold pits, can now be planted out in beds or on borders liberally dressed with manure. If two separate positions can be given to the first plantings an easy succession is assured. I always like to plant some between the rows of early Peas on a warm border, which come in much quicker than those planted in an open bed, the heads always coming in as the late spring Broccoli is finishing. In this manner we have not had a break in the supply of Broccoli and Cauliflowers for five years. Plant in rows 24 inches apart and 15 inches in the row. Cauliflowers sown in heat in January, and gradually hardened off, may be planted in a like manner; but in my opinion autumn-sown plants are not affected by late spring frosts so much as plants from a January sowing. J. JACQUES.

*Bryanston Gardens, Blandford.*

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers**.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 80, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points**.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**LAND INFESTED WITH WIREWORMS** (*C. W., Derbyshire*).—Gas lime should be spread over the surface of the ground at the rate of two bushels to every three rods, and allowed to lie for at least six weeks; it should then be dug in. The ground should not be planted with Carnations or any other crop for about six months after the application, and it will be much benefited by being forked over occasionally. However, neither gas lime, lime, salt, nor any other insecticide has any certain effect upon wireworms, and they should be used rather as preventives than as cures. Before planting in October give the ground a good dressing of soot and wood ashes and fork this in. If you use seaweed as a manure you should not be much troubled by wireworms, and you will find soot most useful. Wireworms may be easily trapped by burying pieces of potato, carrot, or beetroot just beneath the surface with a stick attached. A remedy recommended by the Board of Agriculture and Fisheries, when only a small area of ground has to be treated, is to pour bisulphide of carbon into small holes in the ground, a quarter of an ounce to every square yard, taking care that it does not touch the roots of any plants, and covering the holes at once



with slates, with earth on top. But as this substance is both poisonous and highly inflammable, its use might be objected to on these grounds.

**PLANTS FOR NORTH BORDER (Freebody).**—You cannot do better than plant a good selection of hardy plants and bulbs, the latter to be planted in the autumn, the positions in the meantime being occupied by annuals and such like. You would obtain the best display from such groups as Delphiniums, Phloxes, Pentstemons, the Flag Irises, single and double Pyrethrums, Japanese Anemones, Sunflowers, Gaillardias, Campanulas, Peonies, Heucheras, Aster Amellus in variety, Megaseas, Iberis, dwarf Campanulas, Carnations, &c. These could be planted at once if the border is ready, and such things as Montbretias, Gladioli, and Anemones of the Hortensis group could be added. Many annuals, as Sweet Peas, Poppies, Dianthus, and Godetias, could be sown in the border, or you may plant the early-flowering Chrysanthemums with a view to making a good display in September and October.

**DELPHINIUM SULPHUREUM (W. Price).**—This plant is easily raised from seed. It should be sown in a little heat, or in a cold frame in March. As soon as the seedlings are large enough to handle they should be potted off singly into small pots, using a compost of sandy loam. Keep close for a time after potting, and gradually admit more air as the plants get larger and the pots get filled with roots. It is advisable to keep the plants in pots for the first season, and plunge them in ashes in a cold frame. The following spring they may be planted out in a suitable position, where they obtain perfect drainage in good loamy soil. Staking should be attended to at an early stage, as the plants are very liable to injury from wind, which twists the thin wiry stems at the collar and often breaks them off. It is perfectly hardy, but in cold, wet soils it frequently dies in winter, so that a somewhat warm and sheltered position should be chosen for it, but thorough drainage is essential.

**CHRISTMAS ROSES (Lady Hopkins).**—It is not unusual for the foliage of *Helleborus niger* to turn brown and decay at this time of the year, although in some situations the plants retain their leaves in good condition much longer. Therefore, there is no apparent reason why your plants should not make good growth during the summer months and form plenty of flower-buds for next winter. To encourage them to grow, the soil round about the plants should be loosened a little with a fork, but not dug too near the crowns. A mulching of well-decayed manure should then be applied, and if the season is dry and the situation a well-drained one, plenty of water should be given while the plants are growing. If planted in good rich loamy soil, *Hellebores* do not require much manure, as too much of this tends to luxuriant foliage of a soft nature, which does not stand the winter well. The lights should only be kept over the plants in bad weather to protect the flowers, and when these are over they should be entirely removed.

**ALPINES IN WINDOW-BOX (X. G. H.).**—Many plants would succeed quite well in the position indicated. Good drainage at the bottom by means of holes perforated in the box, a gritty mixture of soils—the slackest lime to which you refer we do not recommend—chiefly composed of loam, sand, and old mortar or brick rubble finely broken will do quite well. In the limited space at disposal avoid a too free use of the flints. If possible let the back board of the window-box be 3 inches higher than the front, with the end boards sloping at the requisite angle. If a fairly wide box you might arrange two rows of plants—irregularly, of course, the flints being placed through the centre of the box to hold up the soil and plants of the back row. Plant firmly, and wedge the stones tightly to the plants. The following are suitable: Front row—*Campanula muralis*, *C. pumila alba*, *C. garganica*,

*Sedum spurium coccineum*, *Atragene alpina*, *Achillea umbellata*, *Sedum Ewersii*. Back row—*Erinus alpinus*, *Saxifraga longifolia*, *S. aizoon rosularia*, *Campanula pulla*, *Armeria alpina rosea*, *Sedum glaucum*, *Sempervivum arachnoideum*, *S. triete*, *Sedum dasyphyllum*, *Saxifraga valdensis*, etc.

**STERNBERGIA LUTEA (A. M. B.).**—This, the winter *Daffodil*, is not difficult to grow, and when once established should be allowed to remain for some years without further disturbance. A deep bed of loamy soil, with a liberal addition of sand and perfect drainage, are the chief items leading to success. The plant does not like frequent disturbance, and the narrow-leaved form, *S. l. angustifolia*, is more generally reliable. *S. l. major* is a fine variety, with larger and, we believe, much richer yellow flowers. The bulbs should be planted in August or September, and not less than 5 inches deep. Plant thinly in a Western or South-western aspect. The Iris may be planted in March in light loamy soils, preferably against a south wall, where the rhizomes can press the brickwork. If your soil is heavy or of a clayey nature, add leaf-soil and sand freely, with old mortar rubbish. Every third year is often enough to move the Iris, and in replanting pull the plants freely apart and plant quite firmly.

**A. H.**—There seems to be no reason why you should not sow Sweet Peas between the rows of bulbs. You would naturally have to be careful not to damage the bulbs in doing so. Provided you break up the soil as deeply as it is possible between the rows of bulbs, keep the Sweet Peas well watered during the summer, and pick off the dead flowers to prevent seeds forming, they will no doubt prove fairly satisfactory. If possible, you should apply a mulch of manure to the rows of Sweet Peas when the bulbs are over. If you can obtain nothing else soot would be beneficial. Although you cannot expect to have such a good display as if the Sweet Peas had the ground to themselves, we should certainly advise you to grow them.

**Boy-lover.**—These may be grown in the way you suggest, using good-sized pots, and a compost consisting of good loam with a little peat and sand added. Plenty of water is essential during the growing and flowering season, and it would be advisable to stand the pots in water to about half their depth. The water, however, should be changed frequently to keep it as fresh as possible. As this Iris dislikes shade, a warm, sunny position should be selected for it. The plants will want repotting every year, the best time being early in the year, just as they commence to grow. A good top dressing of well-decayed cow manure is also beneficial, as these plants are gross feeders. When the plants have finished their growth for the season, and are at rest, they will not require to be kept so wet, and should merely be plunged in the open ground.

**M. A. B.**—These plants are easily grown in pans in a cold greenhouse or frame, or even in a cool, moist spot in the open. The compost required for cultivation in pans is a mixture of fibrous peat and chopped sphagnum moss. Plenty of drainage is essential, and water should be supplied freely in the growing season, it being advisable to stand the pan in a saucer of water. For the resting period in winter the *Pinguiculas* form a small bud not much bigger than a pea, which is very often overlooked when repotting, so that careful search is necessary in order to find all the plants at that time of the year. At the present time the buds are just starting into growth, and if plants are procured at once and potted up in the above compost they are sure to flower this season. In potting, fix the plant by pressing the peat and sphagnum firmly round about it, and if no leaves are yet formed the crown of the bud should be just covered. The best form to get is *P. grandiflora*, which has flowers double the size of the common *P. vulgaris*, and is quite as easy to grow.

## TREES AND SHRUBS.

**HONEYSUCKLE AND WISTARIA (C. W.).**—1. The Honeysuckle is *Lonicera japonica aureo-reticulata*, often known in gardens and nurseries as *Lonicera brachypoda aureo-reticulata*. The Jasmine is the common white-flowered *Jasminum officinale*. There is no doubt that the non-flowering of these two climbing plants is owing to the fact that the position is too shaded, as given a good sunny spot and allowed to grow at will, that is with little or no cutting, they, as a rule, flower freely. 2. The extent to which a *Wistaria* should be pruned will depend in a large measure upon the space at disposal, for where it can be extended indefinitely it may be allowed to grow without pruning. When trained to a house a good plan to keep it within bounds, and at the same time ensure plenty of blooms, is to cut back all shoots on the leading stems

about midsummer to within 1 foot or so of the main stem. These shoots will again break into growth from the buds just behind where the shoot was stopped, and after these second shoots have grown a few inches they should be again stopped. The result will be the formation of flower spurs at the base of the shoot first shortened. Early in the following spring these shoots should be cut back to within five or six eyes of the main stem, and the young growths from these eyes must then in the summer be treated as recommended for the previous summer. By this mode of treatment plenty of flowers will be borne and at the same time the plant kept within bounds.

**Beginner.**—The large-leaved *Cotoneaster* with scarlet berries is undoubtedly *Cotoneaster frigidus*, which, given space for its development, is quite tree-like in habit, and quite unfitted for training to a wall. It will be impossible to keep it close to the wall without sacrificing many of its flowers, and, consequently, fruits. Any pruning that is done may be carried out towards the end of the summer, but if you secure the shoots close to the wall and spur them in annually in the winter we fear berries will be few.

## THE GREENHOUSE.

**DECAYING ASPIDISTRA LEAF (F. T. W.).**—The leaf from your plant of *Aspidistra lurida* sent may be an old one, and what is seen of decay in it is the product of age. But if it be representative of all the leaves on your plant, then we can only assume that the plant is kept too dry at the roots, or that it has become far too cramped and pot-bound. Light such as you mention is far from being needful to health with these plants; indeed, they are natural shade-loving plants, and will do well quite away from light. Where the roots are dry and pot-bound, exposure to light naturally causes the more rapid absorption of moisture from the leaves. *Aspidistras* kept in dwelling-houses where the atmosphere is very dry suffer more than where the air is moister. Sponge the leaves once a week, and, even at this time of the year, stand the plant in a pail of water for a few minutes every two or three weeks.

**UNCOMMON GREENHOUSE PLANTS (J. W. Preston).**—Some more or less uncommon greenhouse plants which would doubtless give you satisfaction are *Rivina humilis*, which bears bunches of small red berries; *Callicarpa purpurea*, most attractive while bearing freely its clusters of rich purple berries, but as it is not very easy to grow well it might perhaps not suit you. *Bougainvillea glabra* and *Cassia corymbosa* are two handsome climbers; the flowers of the latter are yellow, while the former produces large numbers of flowers, whose beauty lies in the rich rose-coloured bracts. *Salvia Pitoheri* and *S. Heeri* are both good greenhouse plants. *Primula floribunda*, *P. verticillata*, *Moechosma riparium* (illustrated in THE GARDEN a few weeks ago), and *Coleus thrysoides*, with handsome blue flowers, are all suitable for your purpose. *Abutilon Thompsoni*, with variegated leaves, is a very pretty greenhouse foliage plant. *Peristrophe speciosa*, with purplish tube-shaped flowers, makes a very handsome plant.

**BLACK LILY FROM PALESTINE (M. Russell Cotes).**—*Arum palæstinum* is nearly hardy, but its manner of growth is against its successful culture out of doors, as it begins to push up its leaves from a large flattened tuber about the end of the summer, grows slowly during autumn and winter, and flowers as a rule in the spring. In July and August firm, well-ripened tubers with a prominent central crown can be obtained from most bulb dealers. These tubers can with little trouble be depended upon to flower well the first season, all that is needed being to pot them into 5-inch or 6-inch pots, according to their size, in a mixture of loam, leaf-mould, and sand, and place them in an ordinary greenhouse. Little water should be given till they start, but in the case of well-ripened tubers this will not take long. After the flowers are over the plants should be watered as before till the leaves turn yellow, when moisture must be entirely withheld. During the



resting period the best place for them is on a sunny shelf in the greenhouse, as upon a thorough baking depend the future flowers, but even then they are not the equal of freshly-imported roots. In July the old plants should be shaken clear of soil and repotted as already advised.

**GREEN ARUM FLOWERS (F. T.).**—It is very probable that as your Arum flowers age the green colour seen in the spathe will fade out and the whiteness will be clear. It is possible that the primary cause of this discoloration is rather too much feeding. Arums like good turfy loam, and with it mixed a little old hot-bed manure and some sand. Feeding and ample watering are best provided after the flowers are over, and the plants, either planted or stood in the pots, out of doors, are then encouraged to make strong growths. Under such conditions large stems are produced, and these produce fine flowers for the following spring.

**J. Hartree**—The Ivy-leaved Pelargoniums are very badly attacked by a fungus whose ravages seem greatly on the increase. Your better plan will be to pick off all the worst of the infected leaves and burn them, after which spray the plants about every fortnight with a solution of potassium sulphide, which is made by dissolving 1oz. of sulphide of potassium (liver of sulphur) in a quart of hot water, and afterwards diluting it with two and a-half gallons of water. With one or two applications, and a freer circulation of air, which becomes possible as the days get warmer, your plants will, in all probability, soon grow out of the disease.

**E. C. M.**—The enclosed leaves represent about the worst examples of rust-infested Carnations that we have ever seen. There is but one remedy, and that is to burn the plants without delay. The trouble is caused not by an insect, as you think, but by a fungus, which first appears as a blister between the membranes of the leaves. Presently it bursts through the membrane, and the coffee-coloured spores are widely scattered. Nothing will reach this fungus till it bursts, and then it is too late for remedial measures. Where large collections are grown a persistent look-out is kept for this dreaded pest, and directly a leaf is seen to be attacked it is cut off and burnt. This fungus causes more trouble to Carnation growers than all other pests together.

**C. T.**—The Heath has evidently been allowed to get too dry, which in the case of these plants is almost sure to prove fatal, as the root fibres are of such an extremely delicate nature that they quickly perish. Ericas under glass should be kept well supplied with water, and as soon as they are out of flower the long shoots must be shortened back, and then if the plants need repotting it should be done directly the young shoots, which are then pushed out, are about  $\frac{1}{2}$  in. long. The soil employed must be peat and sand, which in potting should be pressed down very firmly, at the same time taking great care that the old ball of earth is not buried any deeper than it was before. During the latter half of the summer the plants may be stood out of doors, taking care that they are not allowed to suffer from want of water, but at the same time an excess is equally injurious.

## ROSE GARDEN.

**PRUNING A NEWLY-PLANTED BOUQUET D'OR (G. D.).**—Prune the plant planted in November back to about 2 feet from the ground. The Reve d'Or planted last spring would be best left its full length now, as this Rose is a very shy bloomer until it has become well established. You must spread out the growths of this latter Rose almost fanlike. The established plant of Bouquet d'Or that has now one thick stem should not be cut back now. If there had been two such stems we should have advised cutting hard back one of them, but as there is only one, this will be best retained. In a year or two, most probably, you will find that the plant will send out a new shoot from the base. Give liberal waterings of liquid manure during May and June, and keep the soil frequently stirred.

**PRUNING ROSES PLANTED IN NOVEMBER (New Beginner).**—The first season Roses should be pruned rather severely. Of the list you give those sorts that are non-climbing prune back to within about 6 inches of their base; that is, the main growths. If there are any small shoots springing from the two or three main growths, then cut these back to two or three eyes. The climbing sorts would be the better for pruning to within about 2 feet of their base. In both cases first cut clean away any soft pithy shoots. You can soon ascertain which they are, for they bend very easily. The best growth and blossom follow from the hard, solid wood. There is one variety in your list, namely, Gräns an Teplitz, which may be treated as an isolated bush, and not pruned at all; but only if you have allowed it plenty of space all round.

**H. Stradling.**—We are at a loss to explain the cause of your pot Roses going off so mysteriously. A cold greenhouse is not a good place to keep Roses potted in the autumn, as they are so liable to be injured at the root owing to lack of sufficient moisture. In your case, however, the circumstances point to some injurious ingredient either in water or soil (weed killer, perhaps?). We should advise you to have some of the soil analysed. Perhaps you could enlist the co-operation of the secretary of the National Rose Society or the secretary of the Royal Horticultural Society, as the matter could not fail to interest them. We have known plants die owing to drought at the root. Unless a plant receives a good soaking now and then there is a danger that small applications of water only wet the surface and never really reach the roots.

## ORCHIDS.

**CULTURE OF PHAIUS (Query).**—If your question refers to the bold-growing species of Phaius such as *P. bicolor*, *P. grandifolius*, *P. maculatus*, and *P. Wallichii*, it should be borne in mind that they are strictly terrestrial Orchids, and as such need fairly liberal treatment. They may be well grown in a mixed collection of stove plants, wintering them in a somewhat cooler structure; that is to say, where the temperature ranges from 50° to 60°. The soil best suited for the different species of this section may be made up of equal parts of good turfy loam and fibrous peat, with the addition of a little silver sand and some nodules of charcoal. *Phaius tuberosus*, a beautiful species from Madagascar, is an extremely difficult plant to grow well, but the greatest measure of success seems to be attained when it is given plenty of heat and moisture. Between *P. tuberosus* and the members of the first-named section several hybrids have been raised, which, while very beautiful, are more amenable to cultivation than *P. tuberosus* itself.

**POTTING ORCHIDS (Query).**—If the *Zygopetalums* need repotting the present is a very suitable time for doing so. Most of them have large, fleshy roots, and a very good compost for them may be formed of equal parts of fibrous loam, peat, and sphagnum moss, with which may be mixed some broken crocks and nodules of charcoal. They do best in pots, which, of course, must be quite clean and well drained. In potting the plant should be raised but slightly above the rim of the pot, and the compost worked down regularly and made moderately firm. They are best grown in the temperature of what is known as the Cattleya or intermediate house; that is to say, a structure where the temperature at the present time ranges from 55°, or a little more during the night, with a rise of 10° to 15° in the daytime. Throughout the growing period they need to be watered freely, and when finished less will be required; but at no time must they be kept dry. In the depth of winter a temperature of 50° to 60° is all they need. The beautiful and distinct *Zygopetalum maxillare*, which has curious creeping rhizomes, should not be potted in the same way as the others, but does best when fastened with a little moss to an upright piece of tree Fern stem, around which it will climb.

## FRUIT GARDEN.

**VINES IN COLD HOUSE (Pensioner, R.M.L.I.).** You can grow Vines very well in your unheated greenhouse. Black Hamburg is the best black, and Buckland Sweetwater the best white Grape for the purpose. When the Vines cover the trellis, the back wall would be so shaded as not to be of very much use. You might prevent this by allowing the Vines planted along the front of the house to grow only two-thirds of the way up the trellis, then they would not shade the back wall so much. Try a Fig tree planted against the back wall, or you might grow Tomatoes there. You will never do any good, however, unless you make a proper border for the fruit trees. Dig out the existing soil at least 2 feet deep, dig up the soil at the bottom, and place some broken bricks there for drainage. The holes should also be 2 feet or 3 feet wide. Place some rough turfy material on the drainage to prevent its becoming choked up, then fill the

hole with good turfy soil, with which some bone manure (a handful to a barrowload of soil) has been mixed. The Vines ought to grow well in such a border, but in the soil as it is they would never give satisfaction.

**GRAFTING FRUIT TREES (J. M.).**—Try the effects of more liberal treatment before discarding your Apples, Pears, and Plums, in favour of others. A dressing of old manure dug in round the trees at the present time, with a little basic slag and sulphate of potash (1lb. each of the two latter per tree), might effect an improvement in the next crop. If, however, you are satisfied that the varieties are worthless, and the trees are not cankered or diseased in the lower parts of the stems, re-grafting will be the best. After well cleansing the stems with a solution of caustic soda in water, in the proportion of about 2oz. of the former to a gallon of water, the branches should be cut back to sound healthy wood, and by leaving them of proportionate lengths, the shape of the trees can be, to some extent, regulated. The following varieties are useful, free bearing, profitable for market, and adapted for placing as scions on older stocks because they form good unions. The strong growers must only be placed upon strong stocks, those of medium or weaker growth can be worked on stocks of proportionate strength. The scions in all cases should be taken off some time in advance of the grafting period, and placed in sheltered positions partly buried in the soil. Among Apples for the strongest stocks the following are excellent cooking varieties, viz., Lord Grosvenor, Bramley's Seedling, and Newton Wonder. For medium stocks, Pott's Seedling, Stirling Castle, and Lane's Prince Albert. The last-named should not be grafted on tall trees. Of eating Apples, Worcester Pearmain, King of the Pippins, and Cox's Orange Pippin are profitable. Beauty of Bath is also worth trying as an early variety. In the Plums you will hardly find anything to surpass Ozar, Victoria, and Monarch. In a soil like yours Pears are not likely to be satisfactory.

**SELECTIONS OF FRUIT TREES (H. T. Willoughby).** 1. Six of the best dessert Apples for standards are: Beauty of Bath (August), Duchesse's Favorite (late September), King of the Pippins (October), Cox's Orange Pippin and Allington Pippin (November to February), Gascoyne's Scarlet Seedling (December to January), Worcester Pearmain (September) is also a good market Apple, though of poor flavour. Six best cooking Apples for standards are Lord Grosvenor, Grenadier (August to September), Tower of Glamis (November), Bismarck (December), Newton Wonder and Bramley's Seedling (January to March). 2 The best twelve Apples for cordons are: Dessert—James Grieve (September), King of the Pippins (October), Cox's Orange Pippin (November to February) Adam's Pearmain (December) Allington Pippin (November to February), Lord Barleigh (February). Cooking—Duchesse of Oldenburg (August), Lord Grosvenor (September), Saton House (September, October), Lane's Prince Albert (January to March), Sandringham (February), Calville Malinore (February to March). 3. We have no experience of Plums grown as cordons. 4 Six good Pears for cordons are Fondante d'Automne, Marguerite Marillat, Michaelmas Nells (September), Bauré Superfin (October, November), Winter Nells (November to February), and Josephine de Malines (December to February). 5 Yes, you could grow the cordons against wires as you propose; they will do quite well there, providing the position is not an exposed one. 6 The standard Apple trees ought to be profitable in the end, but it will be several years before they yield much fruit. From the cordon trees you will get quality but not quantity; these cordons do not pay for market. Why not grow bush trees instead? The orchard trees remain in bearing for a great number of years, but the cordons do not. 7. On the fences facing north you might grow Morello Cherries,

and some of the sweet Cherries, for instance, May Duke, Black Tartarian, Florence Heart, Frogmore Bigarreau, Governor Wood, The Noble, and Kentish Bigarreau. On the fence facing east the same Cherries would do well together with Plums, Victoria, Pond's Seedling, Early Prolific, The Czar, and others. On the fences facing south and west any of the cordon fruits mentioned might be grown. 8 The best Cherries for the fence facing north are the Morello, and the others previously mentioned. We do not think you could procure cordon trees of these, fan-trained trees are the best.

**Reader.**—There are fully 100 varieties of large or Lancashire Exhibition Gooseberries. Which of them may produce the heaviest fruits depends chiefly on cultivation, thinning of the fruits, and feeding of the plants that produce them. Conquering Hero and London are fine reds; Leveller and Leviathan, yellows; Plunder and Stockwell, greens; and Freedom and Snowdrop, fine whites. As to Black Currants, Boakop Giant is now held to be the finest berried variety. Very fine also are Baldwin and Victoria.

### KITCHEN GARDEN.

**PEAS AND MICE (F. W. S.).**—Dusting Peas before they are sown with red lead seems to be the very best preventive against injury by mice. If the pests ate the Peas they would be poisoned, but, as a rule, they prefer to let them severely alone. Use a basin, putting into it, say, half a pint of Peas at a time, pour in water to damp them well, then pour it off. Whilst the seeds are still damp, cast into the basin a teaspoonful of the red lead, and well stir with a stick. It may be best to remove the Peas from the basin into the drills with a stick, but if strewn in with the hand great care must be taken to wash the hands so soon as the sowing is over. It would also do if the Peas are sown in the row, before being dressed; well water them, then dust them with the lead powder, and at once cover up. The lead, if sparingly used, does no harm to the germination of the Peas.

**A. S.**—In gardens where there is much demand for forced Rhubarb, planting to a greater or less extent is necessary each season, or the stock soon runs out. Where large stools exist that are forced where they stand, or come on gradually by being covered with litter, portions may be detached from them and planted out on good open soil, well enriched with manure. Sufficient should be grown to allow of a number of three-year-old crowns being lifted for earliest forcing each year.

**Enquirer.**—The season being so far advanced, any remaining stock of Chloory may be stored in a spare pit or frame, protected at night from frost, and one light blancher at a time by covering with mats or litter. In Mushroom houses it comes on rapidly at this date, and cannot then be kept in a usable state for long; whereas in the former position it can be preserved for any length of time. American or Sand Cress may be sown in sheltered nooks this month, and small salad now brought on in cooler houses than heretofore. By these means the quality of all is improved.

### MISCELLANEOUS.

**F. M. D.**—1. Cut back the Rosemary as soon as the harsh winds of early spring are past. 2. As far as our experience extends, cattle and sheep are too discriminating to eat the leaves of Narcissus, which are distasteful to them. 3. The border for bulbs would be all the better if it got the full winter's sun, for the saying that sun after frost does harm applies to tender leaves, whose tissues are quickly ruptured by a sudden thaw.

**B. T. F.**—You cannot do better than apply for the information you require on this subject to the Horticultural Instructor for Sussex, Mr. W. Coaring, Heathfield, Hayward's Heath, as his duties make him intimately acquainted with all sorts of cottage garden and similar societies in your county, and doubtless he can furnish you with all you need. Societies of the kind named are common everywhere, but no doubt those nearest to you would in their regulations have most interest for you.

**Constant Reader.**—Generally the form of such a propagator is an enclosed box, without bottom or top. The front of the box, which should be 14 inches deep, should be constructed as a flap to lift up, to enable a lighted oil lamp to be placed inside, then closed in. On the top of the box should be a flat boiler or cistern the full size over of the box, and 8 inches deep. In one corner, on the upper side, should be fixed a small iron pipe, to enable water to be poured in or to allow steam to escape. That should be 12 inches high. On the top of this boiler fix another box, the size of the one below, the back 12 inches high and the front 8 inches, the sides sloping to the front. Into that put 8 inches of Cocoanut fibre refuse, and on it stand pots holding cuttings or seeds. The top must be of stout glass in a frame of wood made to fit close to the edges of the box, but fixed at the back on hinges.

**H. Jones.**—The animal that you caught in the mole-trap is a specimen of the field vole (*Microtus agrestis*); they are most destructive pests in gardens. They are great burrowers, and often use mole runs as a means of getting about in safety. Sometimes they appear in very large numbers, when great damage is done by them to field as well as garden crops. They do not appear to be easily caught in baited traps, but Carrots have been used as baits with some success. They usually live in woods, plantations, or banks in the proximity of wet or damp localities. —G. S. S.

**NAMES OF PLANTS.**—*Mrs. M. R. K.*—1, *Iris stylosa*; 2, *Anemone (Hepatica) angulosa*. —*M. P. Forster.*—*Euphorbia Lathyrus*. —*L. M.*—*Agathis coelestis*. —*Pockett.*—*Cypripedium venustum*, a poor form. —*Malcar.*—The name of the *Dendrobium* is noble. It differs from the common type, but the variations in this fine species are very great, ranging from pure white to deep red. —*Colonel Featherstonhaugh.*—1, apparently *Retinospora squarrosa*, with the mature foliage much more developed than usual; 2, *Thuja occidentalis*. —*J. W. B.*—1, *Anthurium warocqueanum*; 2, *Curculigo recurvata*; 3, *Phyllotachys nigra*; 4, *Arundinaria falcata* (*Bambusa gracilis*); 5, *Asparagus virgatus*. —*M. A. B.*—Very much shrivelled, but we think it is *Billbergia nutans*. —*H. T.*—1, *Cypripedium Sedeni*; 2, *Phaius grandifolius*; 3, *Cypripedium harrisiianum*. —*J. M. Nix.*—*Helix* *Solieri*, a native of Corsica and Sardinia. —*Rhagatt.*—*Iris japonica* (*ohinensis*). —*W. W.*—1, *Billbergia nutans*; 2, *Cotyledon (Echeveria) fulgens*; 3, *Bambusa Fortunei variegata*; 4, *Kleinia articulata*; 5, apparently *Micromeria Douglasii*. —*Regular Reader.*—1, *Adiantum Moorei*; 2, *A. decorum*;



THE LATE MR. GEORGE NORMAN.

3, *Lomaria ciliata*; 4, *Adiantum concinnum*; 5, *A. cuneatum*; 6, apparently an immature frond of *Polypodium conjugatum*; 7, *Davallia solida* fertile frond; 8, *D. a. sterile* frond; 9, *Begonia metallica*; 10, *Bambusa* sp.; 11, *Pteris Wimsettii*; 12, *Nephrodium mouleii*; 13, *Cordyline australis*.

**NAMES OF FRUIT.**—*Pockett.*—Apple Rosemary Russet. —*H. T.*—The Pear is Catillac; the Apple, Allington Pippin.

## OBITUARY.

### GEORGE NORMAN.

THE news of the death of Mr. George Norman, head gardener to the Marquis of Salisbury, at Hatfield, will be received with widespread regret. Mr. Norman was known as one of the best of English gardeners, a man who took the keenest pride in his work, which he did so well as to earn an enviable reputation for the gardens at Hatfield. He rarely exhibited the produce of his skill, although visitors to Hatfield gardens were always made welcome. Mr. Norman was one of the most unassuming of men; his modesty veiled a kindliness of heart that seemed to increase the more one knew of him. His was a character that endeared him to many and estranged him from none, though only they knew its depths who counted him among their friends. With the death of George Norman there has passed away a personality of much rugged charm, one of the finest representatives of the older school of British gardeners. He was in much request as a judge at various shows throughout the country, and his kindly face will be sadly missed. The funeral, which was largely attended, took place on Monday last.

## LATE NOTES.

**United Horticultural Benefit Society.**—The annual general meeting of this society will be held at the Horticultural Hall, Vincent Square, Westminster, S.W., on Monday, the 12th inst., at 8 p.m. Mr. H. B. May has kindly consented to preside on this occasion. The committee hope that as many members as possible will endeavour to be present.

**"Early Lessons in Cottage Gardening."**—This is the title of a useful little book that ought to have a warm welcome from those for whom it is written. The contents include chapters on soils, plant food, hardy garden flowers, window plants, common vegetables and fruit, and some garden pests. Diagrams help further to explain the author's plainly-worded notes. It is written by Mr. A. A. Kerridge, and published by the Paternoster Publishing Society, 77, Fleet Street, E.C. Price 1s. 6d.

**Rare Grape Vines.**—The Royal Horticultural Society is forming a collection of the best varieties of Grape Vines at Wisley. All that are wanted have been met with except Diamant Traube and White Nice, and for these the secretary and the superintendent have enquired in many quarters and failed to find them. The society would be most grateful to anyone who can supply information of their being still in cultivation, and from whom they may be obtained. It is a thousand pities that two such varieties should perish off the earth. Will foreign and American horticultural papers be so kind as to copy this note?—W. WILKS, Secretary of the Royal Horticultural Society.

**Summer shows at Birmingham.** At a meeting held in the Botanic Gardens, Edgbaston, Birmingham, on the 1st inst., Neville Chamberlain, Esq., in the chair, the following resolution—proposed by Mr. John Pope, King's Norton, and seconded by Mr. T. G. Baker, Wolverhampton—was carried unanimously: "That this meeting of practical horticulturists cordially approves of the proposal of the Birmingham Botanical and Horticultural Society to hold flower shows in the months of June and July, and pledges itself to further the scheme in every respect." Subsequently a committee was formed to make the necessary arrangements, and June 13 and July 4 were selected as the most suitable dates for the show.

**Midland Carnation and Picotee Society.**—The report for 1905 says: "The fifteenth annual exhibition was held at the Botanical Gardens, Edgbaston, on August 2 and 3, and from the exhibition point of view was a great success. The undressed flowers shown in vases constituted a prominent feature of the display, and were greatly admired by many of the visitors to the show. The hearty thanks of the committee are hereby given to the subscribers, exhibitors, and judges, as well as to the Birmingham Botanical and Horticultural Society for four handsome medals, and to Mr. W. Robinson, Mr. Robert Sydenham, and Messrs. Walker and Sons for gifts of special prizes. Although only three exhibitors competed for Mr. Robert Sydenham's liberal prizes for Sweet Peas, the quality of the flowers was unusually good, and the exhibit from Mr. T. Jones of Rubon was an almost absolute replica of his exhibit at the National Sweet Pea Society's show in London. The committee regret to announce a falling off in the list of subscribers, and an appeal is made to every member of the society to introduce fresh subscribers this year. It was unfortunate that the weather on the second day of the exhibition was so unpropitious, in consequence of which the receipts at the gate were not equal to those obtained last year." Mr. T. Humphreys, Botanical Gardens, Edgbaston, Birmingham, is hon. secretary.

**"The Garden Album and Review."**—The second number of this monthly magazine contains coloured plates of Apple Cox's Orange Pippin, Berberis Darwini, Bougainvillea sanderiana, and Meconopsis integrifolia. There are illustrations in black and white of various other plants, as well as seasonable notes on the cultivation of Sweet Peas, Begonias, &c.

**Indian gardening appointments.** Owing to the lamented death of Mr. O. T. Hemsley at Lahore, the following changes take place in the gardening staff in India. Mr. W. R. Brown, from the Royal Botanic Gardens, Calcutta, succeeds the late Mr. Hemsley at Lahore; Mr. A. E. Brown, also from Calcutta, succeeds Mr. Long at Fyzabad. Dr. Prain's successor has not yet been appointed, but we have reason to believe that Dr. A. T. Gage, curator of the herbarium, at present officiating for Dr. Prain, will fill the vacancy.—*Indian Gardening.*

## PRIZES FOR GARDENERS. MARCH.

### HOW TO CROP A SMALL KITCHEN GARDEN PROFITABLY.

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA  
are offered for the best essays upon  
this subject.

By a small garden is meant one of a size which the owner himself may work, or where one man only is kept, with possibly occasional help—about an acre or less in extent. Few are aware of the large returns which may be obtained from such a garden as this when worked on the principle of intensive culture and a proper rotation of crops is carried out. From frequent enquiries made by the owners of such gardens we are persuaded that information on this subject would be helpful to many readers of THE GARDEN. The information we want is not an elaborate treatise, but a concise and informing article giving plain and precise directions as to the best way of treating the land, time for sowing, planting, thinning, &c. Give the names of the best sorts of vegetables, and the time they are in season. Give instructions how to grow Cucumbers and Melons in cold frames, and name sorts.

The essay (limited to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than March 31. Both amateur and professional gardeners may compete, but it is to be hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## TRADE NOTES.

### BURPEE'S FARM ANNUAL.

BURPEE'S FARM ANNUAL, which may be obtained from W. Atlee Burpee and Co., seed growers, Philadelphia, U.S.A., contains particulars of every seed that the average gardener can wish to grow. It is profusely and beautifully illustrated, and for this reason alone is well worth perusal by all interested in gardening. Those who are getting ready for seed sowing should read about Burpee's "Seeds that Grow."

### SEEDS IN PENNY PACKETS.

FROM Wapping Buildings, Cornhill, Liverpool, the manager of the Co-operative Bees, Limited, writes: "We beg to draw your attention to our new seed catalogues. You will note that the arrangement is quite distinct from that of any other in this country, and that the list of varieties is most comprehensive, the total number being upwards of 5,000. The great feature, however, is the fact that all the

items are available in penny packets, though larger quantities are quoted in most cases, and can be supplied of all the varieties enumerated. We have arranged a series of collections from 2s. 6d. to 25 each, showing exactly what is given in each."

### FLOWER BOXES.

MR. LESLIE, 20, St. John Street, Perth, sends us a sample of his patent millboard boxes for sending flowers, fruit, &c., by parcels post. The boxes are well and strongly made, yet they are light and well suited for despatch by parcels post. Their lightness, durability, and cheapness should commend them to all who want boxes for the purpose of sending fruit and flowers by post. They may be had in various sizes. Full particulars may be had of Mr. Leslie, 20, St. John Street, Perth.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY.

THERE was a splendid exhibition of flowers at the Horticultural Hall on Tuesday last. Orchids, bulbous flowers, forced shrubs, and hardy flowers were all largely shown.

### ORCHID COMMITTEE.

Present: Mr. J. G. Fowler (chairman), the Earl of Tankerville, Messrs. James O'Brien, Harry J. Veitch, H. Little, W. Boxall, W. H. Young, H. G. Alexander, H. A. Tracy, H. G. Morris, T. W. Bond, W. H. White, A. A. McBean, W. A. Bilney, J. Wilson Potter, H. T. Pitt, Walter Cobb, R. G. Thwaites, F. Menteith Ogilvie, G. F. Moore, Francis Wellesley, Jeremiah Colman, Norman Cookson, E. Ashworth, de B. Crawshaw, Arthur Dye, and H. Ballantine.

The group of Orchids shown by W. A. Bilney, Esq., Fir Grange, Weybridge (gardener, Mr. C. Whitlock), filled half a long table. It consisted chiefly of Dendrobiums, and made a very beautiful display. D. nobile nobiliss, D. wardianum, and others were represented by finely-flowered plants, producing a mass of colour at the back of the group, while in front others in great variety of colouring were arranged. D. rubens grandiflorum, D. Cordelia, D. Melpomene, D. pallens, D. nobile viridiale, D. n. Amesiae, D. brymerianum, D. thyrsiflorum, D. ambriatum oculum, and others were shown. The elegant racemes of Odontoglossum and other Orchids added grace to the arrangement. Gold medal.

In the group exhibited by Messrs. Charlesworth and Co., Heaton, Bradford, Cattleya Enid, Lillio-Cattleya Janet, and L. C. Myra were conspicuous. There were several beautiful Odontoglossums, e.g., O. crispum xanthotes, O. loochristiense, O. amabile var. Charlesworthi, and O. Rolfeae. A very interesting and beautiful flower was Odontoglossum heatonense, a cross between Odontoglossum cirrhotum and Coochioda sanguinea. The flower is small with acuminate petals; it is spotted with rich rose-pink upon a ground colour of pink. Silver-gilt Flora medal.

Messrs. Cypher and Sons, Cheltenham, exhibited a beautiful lot of Orchids that contained some splendid Dendrobiums, Cattleyas, and other Orchids. The former were largely represented. Dendrobium nobile album, D. n. nobiliss, D. atro-vioaceum, D. schneiderianum, D. Apollo album, D. wardianum hololeucum, D. splem. dissimulatum, and others being shown. Lycaste Skinneri was finely in flower, and L. S. alba was very beautiful. Cattleya amethystoglossa, Lallia aneops schroderiana and Odontoglossum were all well shown. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, exhibited some finely-flowered Dendrobiums and a selection of Lillio-Cattleyas. These included L. C. Berthe Fournier, L. C. Empress of Russia, Dendrobium glaucum, Cologne oristata leoniana, Cymbidium Lowie eburneum, Cattleya Trianae splendens, and numerous Cypridiums were in this exhibit. Silver Banksian medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed a very pretty group of Orchids that contained some well-flowered Dendrobiums, such as D. wardianum, D. crassinode, D. findlayianum, and D. nobile. Cattleya Trianae varieties, C. peruviana alba, Miltonia blenana, Lycaste Skinneri alba magnifica, Phalaenopsis schilleriana, and Dendrobium glaucum were other Orchids excellently represented. Bronze Banksian medal.

The group of Oncidium concolor shown by Messrs. Stanley and Co., Southgate, N., made a beautiful display, the numerous hanging racemes of rich yellow flowers showing well among suitable greenery. Silver Banksian medal.

C. J. Lucas, Esq., Warnham Court (gardener, Mr. Duncan), showed a small collection of Orchids, consisting of Cypridiums, Angreum sesquipedale, L. C. warnhamensis, Calanthe maculata, with green leaves heavily spotted with yellow and pale yellow flowers. Bronze Banksian medal.

Messrs. Heath and Son, Cheltenham, exhibited a few Dendrobiums, Colognes, Cattleyas, and Odontoglossums. A cultural commendation was awarded to Dendrobium Sybil, shown by Sir Trevor Lawrence, Bart.

A cultural commendation was also awarded to Maedevallia Pourbaixii, shown by Jeremiah Colman, Esq., Reigate.

M. Ch. Vuylsteke, Loochristi, Ghent, again showed some of his beautiful Odontoglossums. Silver Banksian medal.

A silver Flora medal was awarded to Baron Schröder, The Dell, Egham (gardener, Mr. Ballantine), for a group of splendid plants of Calanthe Regnierii and C. Baron Schröder albiflora.

The first diploma for a Dendrobium species was awarded to Dendrobium nobile Perfection from Messrs. Cypher, and the second diploma to D. n. dormanlanum.

The first diploma for a hybrid Dendrobium was awarded to D. wigianum Gatton Park variety, shown by Jeremiah Colman, Esq.; the second diploma to D. Atsworthii intertextum. Shown by Baron Schröder.

A silver Banksian medal was awarded to the Orchids shown by E. Briggs-Barry, Esq., Acorington.

### NEW ORCHIDS.

*Lisecichilus Horsfieldii*.—A handsome plant growing about 3 feet high, with large Phalaenopsis-like leaves, and bearing erect racemes some 4 feet or more high. Towards the top of the raceme the flowers are produced; the sepals are small, oblong, purplish green, and upright; the petals are broad, bluish-coloured, and arranged horizontally; the lip, which hangs down, is dark purple with pale yellow crest, the throat being striped with green and dark purple. Shown by the Hon. Walter Rothschild, Tring (gardener, Mr. A. Dye). First-class certificate and silver-gilt Flora medal.

*Sophro-Cattleya warnhamensis* var. *Coriae*.—The parentage of S. C. warnhamensis, of which this beautiful flower is a variety, is Cattleya amethystoglossa and Sophronitis grandiflora. The variety Coriae has fairly large flowers which are of uniform rich corise colouring throughout sepals and petals. The lip is orange red or scarlet. It is a brilliantly-coloured flower. Shown by Sir W. H. Smith-Marrlott, Bart., Down House, Blandford. First-class certificate.

*Odontoglossum fowlerianum*.—A very beautiful flower, the result of a cross between O. Bossii rubescens and O. cirrhotum. The sepals and petals are long and narrow; they are marked with dark red-brown velvet-like bars, the white ground colour showing through. The ends of sepals and petals are purple; the long lip is purple except at the tip beneath the column, where it is rich yellow. Shown by Messrs. Sander and Sons, St. Albans. First-class certificate.

*Odontoglossum heatonense*.—This is the result of a cross between Odontoglossum cirrhotum and Coochioda sanguinea. It is a small flower, with narrow acuminate sepals and petals, spotted with rich rose-pink upon a pale pink ground. It is a dainty and pretty flower, partaking in form largely after O. cirrhotum. From Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

*Dendrobium nobile Perfection*.—The result of a cross between D. nobile elegans and D. n. nobiliss. The flower has broad sepals and petals of good form, tipped at the ends with rose-purple. The lip is cream coloured, with purple edge to the lower half. The throat is crimson-black. From Messrs. James Cypher and Sons, Cheltenham. Award of merit.

*Dendrobium Wigana Illustris*.—A cross between D. nobile nobiliss and D. signatum aureum. A beautiful flower, the sepals and petals are tinged with rose purple, and the lip is edged with the same shade at the base, it is cream coloured above, deepening to yellow near the dark crimson throat. Shown by Sir Trevor Lawrence, Bart., Bedford, Dorking (gardener, Mr. W. H. White). Award of merit.

*Dendrobium wigianum Gatton Park variety*.—This is the result of a cross between D. Hildebrandtii and D. nobile. The flower is fairly large, the white sepals and petals being tinged with rose at the ends; the lip is pale primrose, faintly tinged with rose at the base; the throat is marked with purple. Shown by Jeremiah Colman, Esq. (gardener, Mr. Bound). Award of merit.

*Odontoglossum Resit immaculatum*.—A beautiful form with narrow pale red-brown sepals, broader petals, white, with a tinge of rose-red at the base. The lip is large and white, except beneath the column, where it is yellow. Shown by de B. Crawshaw, Esq., Sevenoaks (gardener, Mr. Stables). Award of merit.

*Lillio-Cattleya diphyano-Mendelii* var. *Fortuna*.—A large and beautiful flower, greenish white, almost pure white throughout sepals and petals; the large fringed lip is white, with soft green colouring in the centre. Shown by J. Bradshaw, Esq., Southgate, N. (gardener, Mr. Whitelegue). Award of merit.

*Platanus yunnanensis*.—The flower is rich rose-purple throughout sepals and petals, the lip being spotted with chocolate-red. Shown by Messrs. Sutton and Sons, Reading. Award of merit.

### FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. A. H. Pearson (chairman), Messrs. George Woodward, S. Mortimer, A. Dean, H. Farr, A. R. Allan, W. Pope, E. Lye, W. Crump, H. Markham, H. J. Wright, Edwin Beckett, James Vert, John Lyne, Joseph Davis, F. Q. Lane, G. Reynolds, J. Willard, G. Wythes, J. McIndoe, C. Foster, W. E. Divers, Owen Thomas, F. C. M. Veitch, W. Poupard, and J. Jaques.

A silver Banksian medal was awarded to J. B. Fortescue, Esq., Dropmore, Maidenhead (gardener, Mr. Page), for thirty-six dishes of Apples and Pears. Both were finely shown. Among the former there were excellent fruits of Bramley's Seedling, Lane's Prince Albert, Newton Wonder, King of the Pippins, Gloria Mundi, Lord Derby, and Hambleton Deux Asa. Pears Cattail, Bellissime d'hiver, and Duchesse de Bordeaux were good.

A vote of thanks was given to Mr. C. Foster, University College, Reading, for some excellent samples of Chicory as forced for salading and cooking.

Messrs. Hurst and Sons, Veitch and Sons, Barr and Sons, and Sutton and Sons exhibited Snow's Winter Broccoli; and Brydon's Peerless Broccoli was shown by Messrs. Kent and Brydon, Darlington.

Tomato Carter's Sunrise, a valuable winter-fruited variety with small red fruits, was shown by Mr. G. Wythes, Byon Gardens, Brentford.

Mr. John Crook, Forde Abbey, Chard, sent a dish of Dwarf Beans Veitch's Early Wonder.

[The report of the Floral Committee is unavoidably held over until next week.]

# J. W. CROSS'S SPECIAL OFFER SEED POTATOES (1,000 TONS).

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<b>Eldorado</b> , the leading variety, heavy cropper, splendid cooker, well worth a trial ... ..	LATE	cwt. 20/-	14 lbs. 4/-
<b>Duchess of Cornwall</b> , handsome, white flattish round, wonderful cropper and cooker ... ..	"	8/-	1/6
<b>Diamond</b> , grand variety of kidney form, robust haulm, tremendous cropper ... ..	"	8/-	1/6
<b>Gold Coin</b> , kidney shape, splendid table quality, very heavy cropper ... ..	"	8/-	1/6
<b>Sutton's Discovery</b> , a fine round variety, grand cropper, good cooker ... ..	"	7/-	1/6
<b>Peckover</b> , immense cropper, very strong grower, F.P. Medal, N. Potato Show, Crystal Palace ... ..	"	30/-	5/-
<b>Conquering Hero</b> , thick oval, sometimes more kidney, good cookers, and heavy cropper ... ..	"	20/-	4/-
<b>Northern Stars</b> , vigorous growth, exceptionally heavy cropper, and splendid for table ... ..	"	4/6	9d.
<b>The Recorder</b> , exquisite in form and beauty, enormous cropper, one of the leading varieties ... ..	"	10/-	1/9
<b>Noroton Beauty</b> , the most productive, one of the very earliest, superb for table, limited stock, very scarce ... ..	1st EARLY	40/-	7/-
<b>Maxim, First Early</b> , very heavy cropper, earlier than "Duke of York," F.P. Medal, Crystal Palace ... ..	"	40/-	7/-
<b>Sir John Llewellyn</b> , kidney, white flesh, very heavy cropper, handsome tubers ... ..	"	5/-	1/-
<b>Radium (Dalmeny)</b> , handsome oval potatoes, beautifully netted skin, heavy cropper ... ..	2nd EARLY	40/-	7/-
<b>Sim. Gray</b> , heavy cropper, handsome in appearance, one of the best round sorts ... ..	"	6/-	1/-
<b>Dalmeny Early</b> , round white, of first-class quality, very heavy cropper, good cooker ... ..	"	8/-	1/6

## Earlies & Maincrops.

<b>Duke of Yorks</b> ... ..	1st EARLY	cwt. 5/-	14 lbs. 1/-
<b>Early Rose</b> ... ..	"	5/-	1/-
<b>Hebrons</b> , white and pink ... ..	"	5/-	1/-
<b>Myatts</b> ... ..	"	5/-	1/-
<b>Ninetyfold</b> ... ..	"	5/-	1/-
<b>Puritans</b> ... ..	"	5/-	1/-
<b>Sharpe's Victor</b> ... ..	"	10/-	1/6
<b>Ringleader</b> ... ..	"	12/-	1/9
<b>May Queen</b> ... ..	"	8/-	1/6
<b>Snowdrops</b> ... ..	2nd EARLY	5/-	1/-
<b>Sharpe's Express</b> ... ..	"	5/-	1/-
<b>Cigarettes</b> ... ..	"	5/-	1/-
<b>Challenge</b> ... ..	"	5/-	1/-
<b>King Edward VII.</b> ... ..	"	4/-	9d.
<b>British Queen</b> ... ..	"	4/-	9d.
<b>Windsor Castle</b> ... ..	"	10/-	1/6
<b>Royal Kidney</b> ... ..	"	4/-	9d.
<b>Duke of Albany</b> ... ..	"	6/-	1/-
<b>White Elephants</b> ... ..	"	7/-	1/-
<b>Bruce</b> ... ..	MAINCROP	4/6	9d.
<b>Charles Fidler</b> ... ..	"	4/6	9d.
<b>Clarke's Maincrops</b> ... ..	"	4/-	9d.
<b>Daniels' Sensation</b> ... ..	"	7/-	1/-
<b>Evergood</b> ... ..	"	5/-	9d.
<b>Empress Queen</b> ... ..	"	4/-	9d.
<b>Goodfellow</b> ... ..	"	4/-	9d.
<b>Gartons</b> ... ..	"	4/-	9d.
<b>Magnum Bonums</b> ... ..	"	5/-	1/-
<b>Up-to-date</b> ... ..	"	3/6	9d.
<b>Langworthy</b> ... ..	"	3/-	9d.
<b>Factor</b> ... ..	"	6/-	1/-
<b>Lynn Gray</b> ... ..	"	6/-	1/-
<b>Scottish Triumph</b> ... ..	"	5/-	1/-

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CASH WITH ORDER. NOTE FULL ADDRESS. ALL KINDS OF GARDEN SEEDS. SEND FOR LIST.

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## SWEET PEAS.

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<b>Black Knight.</b>	<b>King Edward VII.</b>
<b>Captain of the Blues.</b>	<b>Lady G. Hamilton.</b>
<b>Coccinea.</b>	<b>Lord Rosebery.</b>
<b>Dorothy Eckford</b>	<b>Miss Willmott.</b>
<b>Hon. Mrs. Kenyon.</b>	<b>Mrs. W. Wright.</b>
<b>Janet Scott.</b>	<b>Triumph.</b>

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<b>Countess Cairns</b> , H.T.	<b>Hugh Watson</b> , H.T.
<b>David Harum</b> , H.T.	<b>Lady Ashtown</b> , H.T.
<b>Dean Hole</b> , H.T.	<b>Madame E. Metz</b> , H.T.
<b>Dr. J. C. Hall</b> , H.T.	<b>Mad. Paul Oliver</b> , H.T.
<b>Duchess of Portland</b> , H.T.	<b>Mildred Grant</b> , H.T.
<b>Earl of Warwick</b> , H.T.	<b>Monsieur Paul Lede</b> , H.T.
<b>Etoile de France</b> , H.T.	<b>Mrs. C. Jones</b> , H.T.
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## CARDIFF GARDENERS' ASSOCIATION.

THE usual fortnightly meeting was held at the Sandringham Hotel on the 20th ult., when Mr. F. G. Treseder presided over a large gathering of members. A very interesting lecture was delivered on "Our Resident Birds as Friends and Foes," by Mr. J. Mountney, taxidermist, Cardiff. The subject rendered by such an expert made it particularly interesting. Upwards of forty different species were mentioned. The lecturer drew the attention of the members to the fact that some of the species were regarded as a great nuisance to gardeners and farmers generally. The fact, too, must be faced that, were it possible to destroy all the birds, what a terrible plight the gardener and farmer would soon be in! They would be at their wits' end to know how to deal with the ravages of pests of all kinds. In many instances the birds were more often taking the parts of friends rather than enemies. Mr. Graham opened the discussion, in which many afterwards joined, and Mr. Mountney had won from many of the members the sympathy he asked for towards many of the species, but the old enemies—the sparrows and chaffinches—did not in the least get exonerated from the former and almost universal verdict, "Perfect pests and thieves." The best thanks were accorded Mr. Mountney for his interesting lecture. Mr. T. Williams, Cardiff, won the prize of 5s. offered by Mr. H. Gillett for the best pot of Cyclamen, which was an excellent specimen, carrying over thirty flowers and well developed. A first-class certificate was awarded to Messrs. Sutton and Sons, Reading, for two pots of Cyclamen staged and not for competition.

## NATIONAL CHRYSANTHEMUM SOCIETY.

## SHOW OF MARKET CHRYSANTHEMUMS.

ARRANGEMENTS are already made for holding this show at the Foreign Flower Market, Covent Garden, this year, the date fixed being December 12. There are some slight alterations and additions to the schedule of prizes. This is now published, together with a statement of account, and may be had from the secretary, Mr. G. R. Dean, 8, Avonwick Road, Heston, Hounslow. The account shows a balance in hand of £11 0s. 11d. Last year's show proved a much greater success than the previous one, which was the first venture. The second annual dinner in connexion with the show took place at Hammum's Hotel, Covent Garden, on the 26th ult. The dinner arrangements were in the hands of Mr. D. Ingemells, and were most satisfactorily carried out. Mr. R. Billantyne occupied the chair, and was supported by several well-known Chrysanthemum growers. The chairman proposed "Success to the Market Show." Although there was a good attendance, several letters from friends were read who were unable to attend. Messrs. Clay and Son sent a cheque for five guineas towards this year's prize fund. Mr. R. F. Felton, Hanover Square, W., promised a silver bowl,

value three guineas, for the best collection of single varieties. Mr. J. Kinnell (of Messrs. C. Kinnell and Co.) promised a large silver medal for the best vase of Chrysanthemums. Other contributions at the disposal of the committee were: Gold medal from Mr. J. Webb (manager of Hammum's Hotel), silver-gilt medal from Mr. M. Larsen, silver-gilt medal from Mr. F. Bunyard (of Mr. G. H. Richards), and silver medal from Mr. E. F. Hawes (Royal Botanic Gardens).

## SCOTTISH HORTICULTURAL SOCIETIES.

ROYAL CALEDONIAN.—The Council of the Royal Caledonian Horticultural Society have just issued their annual report, statement of accounts, list of members, and prize lists for the year. A summary of these has already appeared in the columns of THE GARDEN, but attention may be called to the appeal of the Council for an increased membership, and to the schedules of prizes at the shows. The membership for the past year shows a net increase of eighty-three members, but this is not at all proportionate to what it ought to be in a country where horticulture has for so long been held in high regard. Although not productive of a large addition to the funds, the increase in the number of gardener members, at a subscription of 5s. only, is highly satisfactory, these showing an increase of sixty-two after deducting losses by death or resignation. As already mentioned in THE GARDEN, three shows are to be held this year. The spring show has been fixed for May 8 and 10; the summer one, a revival of a former fixture of the society which has not held its July show since 1889, on July 18, in connexion with the National Rose Society; and the autumn show, which takes place on September 12 and 13. All these shows will be held in the Waverley Market, Edinburgh, and it should be noted that the prizes offered by the National Rose Society can only be competed for by members of the National Rose Society and the Royal Caledonian Horticultural Society. The schedules appear to have undergone careful revision, and several improvements have been made.

EDINBURGH AND EAST OF SCOTLAND AGRICULTURAL COLLEGE.—As is well known, this college embraces horticulture and forestry among its objects, and the new premises in George Square, Edinburgh, will afford great additional facilities for these departments. In the biological department, under the charge of Dr. Stewart Macdonald, there are several large cases containing specimens of value to those engaged in horticultural or kindred studies, among these being insects injurious or beneficial in horticulture and forestry, useful Grasses and seeds, edible and poisonous fungi, plant parasites in various stages, and illustrations of plant structure and plant history. In conjunction with the horticultural lectures of Mr. Graham Berry, the improved accommodation and conveniences cannot fail to be more helpful to the students of horticulture and forestry. The new premises

were formally opened by Lord Balfour of Burleigh on the 28th ult. in an interesting speech, and Colonel Wardlaw Ramsay, who presided, referred to the value of the two experimental fruit-plots managed by the college—the one provided by the Carnegie Dunfermline Trust, and the other by the Fife County Council.

## OXFORD GARDENERS' SOCIETY.

THE first of a series of lectures arranged by the above society was delivered at the Corn Exchange on the 19th ult. by Mr. Edwin Beckett of Aldenham House Gardens, Ectree, and the committee are to be congratulated on the excellent way the arrangements were carried out. The president of the society is E. Herbert Murrell, Esq., of Headington Hill, and the able secretary, to whom much of the success is due, is Mr. M. W. Hovell of Isley Road. The subject of the lecture was "Vegetable Culture," and Mr. Beckett dealt with many of the principal kinds in a most interesting manner, and also spoke at some length on that all-important subject, the preparation of the land, strongly advising the bringing of the subsoil to the surface, whatever its nature. The lecturer was able to illustrate, by some excellent slides and a good lantern, many of the best types of vegetables, and also some of his winning collections in various parts of the country. These called forth much praise from the audience, and a very hearty vote of thanks to the lecturer brought the evening to a close.

## BRIGHTON &amp; SUSSEX HORTICULTURAL SOCIETY.

## PROGRAMME 1906-1907.

THE meetings of the society will take place at the Imperial Hotel, Queen's Road, Brighton, at 7 p.m., on the following dates, when discussions will take place, and competitions for prizes held, at which all members and subscribers are entitled to be present: March 15, "Early Strawberries in Pots," by Mr. W. Magness; April 19, "Sunshine," by Mr. G. A. Smith (illustrated by lantern slides); May 17, "The Improvement in Fruit and Flowers," by Mr. H. Elliott; June 21, Open Discussion, introduced by Mr. G. Miles; September 20, "Orchids," by Mr. A. Van Den Bogaerde; October 18, "British and Foreign Public Parks and their Characteristics," by Mr. Joseph Cheal, F.R.H.S. (illustrated by lantern slides); November 15, "Why have Flowers Various Colours, Shapes, and Odours?" by Mr. F. Field; February 21, 1907, "Cucumbers and Tomatoes," by Mr. H. Elliott.

The list of shows for 1906 is as follows: April 8 and 9, Spring Show at the Royal Pavillion; August 21 and 22, Summer Show at the Royal Pavillion; November 6 and 7, Chrysanthemum Show at the Royal Pavillion.

\* \* The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 6d.

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" Frazeri	...	"	3/6	5/-
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" Hypoleuca	...	"	5/-	7/6
" Lennel	...	"	5/-	7/6
" Macrophylla	...	"	—	5/-
" Parniflora	...	"	—	5/-
" Purpurea	...	"	2/6	3/6
" Speciosa	...	"	5/-	7/-
" Stellata	...	"	2/6	5/-
" Striata	...	"	3/6	5/-
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# THE GARDEN.

No. 1791.—VOL. LXIX.

MARCH 7, 1906.

## PRUNING ROSES.

**W**E have received many letters asking for information about the way to prune individual varieties of Roses, and the following lists have been prepared with much care. Old and new hybrids and varieties are included.

### HYBRID PERPETUALS.

*Moderate growers.*—Cut away all soft, pithy shoots first; then prune the hard growths made last year back to 2 inches to 3 inches of their base. Always prune to a plump eye, even if the shoot is left of greater length than stated. The eye should always look outward.

Antoine Ducher	Lord Macaulay
Baroness Rothschild	Mabel Morrison
Brilliant	Mme. C. Wood
Duke of Albany	Mlle. Marie Verdier
Duke of Fife	Marquise de Castellane
Duke of Wellington	Merveille de Lyon
Earl of Pembroke	Queen of Queens
Etienne Levet	Silver Queen
E. Y. Teas	Spencer
Gustave Figueau	Victor Hugo
Helen Keller	White Baroness
Lady Sheffield	Xavier Olibo

*Medium growth.*—Prune back last year's strongest shoots to within 4 inches to 6 inches of their base; the laterals from 2 inches to 3 inches. Remove all soft, pithy wood.

Abel Carrière	Louis Ricard
Alfred Colomb	Louis van Houtte
Alfred E. Williams	Mme. Bois
Baron A. de Rothschild	Mme. Eugène Verdier
Baronne de Maynard	Mme. Lacharme
Beauty of Waltham	Mme. Victor Verdier
Bessie Johnson	Mlle. Annie Wood
Black Prince	Mlle. Eugénie Verdier
Bob Davison	Mlle. Marie Finger
C. Bernardin	Mlle. Marie Raby
Captain Hayward	Marchioness of London-
Caroline d'Arden	derry
Charles Lamb	Marie Baumann
Cheerful Scarlet	Mrs. Cocker
Comte de Balmand	Mrs. G. Dickson
Countess of Oxford	Mrs. H. Turner
Crown Prince	Mrs. R. G. Sharman Craw-
Dr. Andry	ford
Dr. Sewall	Oscar Cordel
Duchess of Bedford	Pierre Notting
Duke of Connaught	Pride of Waltham
Dupuy Jamain	Prince Arthur
Eclair	Reynolds Hole
Exposition de Brie	Robert Duncan
Fisher Holmes	Roslyn
Garden Favourite	St. George
General Baron Berge	Salamander
General Jacqueminot	Senateur Valise
Grand Mogul	Sir R. Hill
Horace Vernet	Star of Waltham
Hugh Dickson	Suzanne M. Rodocanachi
Jeannie Dickson	Tom Wood
Jubilée	Triomphe de Caen
La Reine	Victor Verdier
Lady Helen Stewart	Violette Bouyer
Lawrence Allen	Waltham Standard

*Vigorous growing.*—Remove all soft, pithy wood. Cut back the longest of last year's growths to within 8 inches to 12 inches of their base; lateral and weaker shoots to 4 inches to 6 inches.

Anna de Diesbach	Charles Lefebvre
Ards Rover	Clio
Baron de Bonstetten	Commandant F. Faure
Ben Cant	Coquette des Blanchies
Boule de Neige	Countess of Rosebery
Captaine Jones	Crimson Queen

Duke of Edinburgh  
Duke of Teck  
Earl of Dufferin  
Elise Boelle  
Ella Gordon  
Eugène Furst  
François Michelon  
Frau Karl Druschki  
Gloire de Margottin  
Glory of Waltham  
Heinrich Schultheis  
Her Majesty  
Jean Liabaud  
John Hopper  
Jules Margottin  
La Duchesse de Morny  
Lord Bacon  
Mme. A. de Rougemont  
Mme. C. Joigneaux

*Very vigorous.*—Most of these may be used as pillar Roses, and in that case their growths are left almost full length. Cut away dead and soft wood. When used as bushes, leave growths from 18 inches to 24 inches long, and, if wanted for pegging down, the long annual growths may be bent over their full length.

Climbing Jules Margottin  
" Pride of Waltham  
" Victor Verdier  
Mme. Edmé Cocheau  
Mme. Isaac Perreire  
Magna Charta

Mme. E. Fremy  
Mme. G. Luisset  
Mme. J. Bonnaire  
Mme. Boudillon  
Marchioness of Lorne  
Maréchal Vallant  
Margaret Dickson  
Milton  
Mrs. F. W. Sandford  
Mrs. John Luing  
Paul Neyron  
Paul's Early Blush  
Prefet Limbourg  
Prince C. de Rohan  
Rev. Alan Cheales  
Sultan of Zanzibar  
Ulrich Brunner  
William Warden

Princesse C. de Ligne  
Senateur Belle  
Souv. de J. Ketten  
Souv. de Mme. E. Cauvin  
Souv. de Mme. E. Verdier

Souv. de Wootton  
Souv. d'Helene  
Souv. du President Carnot  
The Meteor  
William Notting

*Vigorous growing.*—Cut out soft wood. Prune longest shoots made last year from 6 inches to 10 inches of their base; lateral shoots 3 inches to 6 inches. Many of these yielding long annual growths may be bent over, and will flower all over the bent growth.

Apotheker G. Hofer  
Augustine Hamont  
Bardou Job  
Caroline Testout  
Countess Cairns  
Etoile de France  
Ferdinand Jamin  
Gabrielle Pierrette  
George Laing Paul  
Gladys Harkness  
Gloire Lyonnaise  
Grace Darling  
G. Grunerwald  
Irene  
Irish Beauty  
Irish Glory  
Irish Harmony

J. B. Clark  
John Eakin  
Josephine Marot  
La France  
La Tosca  
Lady M. Beauchere  
Lady Wenlock  
Ma Tulipe  
Mme. Abel Chatenay  
Mme. Pernet-Ducher  
Mme. Wagram  
Mamie  
Marie Croblier  
Pharisier  
Princesse Bonnie  
Viscountess Folkestone  
William Askew

*Very vigorous.*—Many of these may be employed as climbers or pillar Roses, and their annual growths retained nearly full length. If used as bushes, prune back to within 15 inches to 24 inches of their base; lateral shoots from 5 inches to 6 inches. All soft, pithy wood remove.

Ards Pillar  
Cheerful Hybrid  
Climbing Mrs. W. J. Grant  
" Captain Christy  
" Caroline Testout  
" Kaiserin Augusta  
" Victoria  
" La France  
" Meteor  
" Souvenir de Wootton

Germaine Trochon  
Gustave Regis  
La France de '89  
Lady Waterlow  
Mme. A. Carrière  
Mme. H. Leulliot  
Mme. J. Combet  
Mme. M. Levalley  
Morgenroth  
Pink Rover  
Reine M. Henriette  
Waltham Climbers

Dawn  
England's Glory

### TEA-SCENTED.

*Moderate growers.*—Cut out soft wood. Prune hard wood of last season back to 2 inches or 3 inches; remove entirely their weakly laterals from centre of plants.

Cleopatra  
Corinna  
Georges Schwartz  
Goldquelle  
Luciole  
Ma Capucine  
M. Ada Carmody

Mme. Rene Gerard  
Meta  
Narcisse  
Princesse de Sagan  
Souvenir d'Elise Vardon  
Sunrise

*Medium growth.*—Prune well-ripened wood of last year back to from 4 inches to 6 inches. One growth in each plant should be left rather longer than this, if possible.

Albert Patel  
Alliance Franco-Russe  
Amazon  
Anna Chartron  
Anna Olivier  
Beauté Inconstante  
Berthe de Bary de Zahony  
Beryl  
Betty Berkeley  
Badiana  
Bridesmaid  
Catherine Mermet  
Chameleon  
Comtesse de Nadailac  
Comtesse F. Hamilton  
Comtesse S. Torby

Dr. F. Guyon  
Elise Fugler  
Empress A. of Russia  
Ernest Metz  
Etoile de Lyon  
Fortuna  
Francis Dubrieni  
Francisca Kruger  
Frisquet  
General Gallieni  
Golden Gate  
Goubault  
Grand Duchesse Anastasie  
Hon. Edith Gifford  
Innocente Pirola  
Jean Ducher

### HYBRID TEAS.

*Moderate or weak growing.*—Prune away soft wood; last year's growths retain 2 inches to 4 inches long.

Anna M. Souper  
Baron Lade  
Beauté Lyonnaise  
Charlotte Gillemot  
Corona  
Danmark  
David Harum  
Edith Dombain  
Elizabeth Killo  
Ferdinand Batel  
Joseph Hill  
Lady Mary Fitzwilliam  
Liberty  
Mme. Cadeau-Ramey  
Mme. E. Bujlet

Marie Louise Poirat  
Marjorie  
Mark Twain  
Marquise Litta  
Mildred Grant  
Mrs. W. J. Grant  
Nelly Briand  
Papa Lambert  
Paul Lede  
Robert Scott  
Tennyson  
Violoniste E. Lévêque  
W. F. Bennett  
White Lady

*Medium Growth.*—Cut away soft growth. The strongest hard shoots made last season prune to 5 inches or 6 inches; the lateral and small shoots 2 inches to 4 inches, the weakest being pruned the hardest.

Admiral Dewey  
Alice Grahame  
Alice Lindsay  
Amateur Toyner  
Antoine Rivroie  
Augustine Guinotasseau  
Aurora  
Bessie Brown  
Camons  
Captain Christy  
Captain Christy (red)  
Clara Watson  
Countess of Caledon  
Dean Hole  
Dr. J. C. Hall  
Duchess of Portland  
Earl of Warwick  
Edmund Deshayes  
Edu Meyer  
Esquiste  
Farkenkongin  
Florence Pemberton  
Frau L. Rutenstrauch  
Frau Peter Lambert  
Goldoise  
Grand Duc de Luxembourg  
Grossherzog Von Olden-

Grüss an Sangerhausen  
Helen Boniter  
Helena Cambier  
Helene Guillot  
Helene Walker  
Jeanne Bastois  
Josephine Marot  
Kaiserin Augusta Victoria  
Kilmarie  
Konigin Carola  
Lady Battersea  
Lady Clannmorris  
Le Froigne  
Mme. C. De Luz  
Mme. Edmé Metz  
Mme. Jules Groles  
Mme. P. Olivier  
Mme. Ravary  
Marguerite Guillot  
Marquise de Salisbury  
Mina Barbanson  
M. Bunel  
Mrs. Conway Jones  
Mrs. David McKee  
Mrs. T. R. Roosevelt  
Pauline Berz  
Perle Von Giesberg  
Prince de Bulgarie

Jean Pernet  
Jules Finger  
Lady Mary Corry  
Lady Roberts  
Lucie Carnegie  
Mme. Antoine Mari  
Mme. Charles  
Mme. C. Guindoussau  
Mme. C. Marchix  
Mme. Ouzin  
Mme. de Watteville  
Mme. Durand  
Mme. Falot  
Mme. Hosie  
Mme. J. Charreton  
Mme. L. Poncet  
Mme. F. Ferry  
Mme. Vermorel  
Margherita di Simone  
Marquise de Vivens  
Morning Glow  
Mrs. E. Mawley  
Muriel Grahame  
Niphetos

Papa Gontier  
Perle des Jardins  
Perle des Jaunes  
Profet Monteuil  
Prince T. Gallitane  
Princess of Wales  
Rainbow  
Reichsgraf E. von Kessel-  
stark  
Rubens  
Salmones  
Saphe  
Souv. de C. Guillot  
Souv. de G. Drevet  
Souv. de J. B. Guillot  
Souv. de Pierre Notting  
Souv. de Thérèse Levet  
Sulphures  
Sunset  
Sylph  
The Bride  
Vicomtesse R. de Savigny  
Yvonne Gravier

**Vigorous - growing sorts.**—These should be pruned sparingly; cut back the main shoots from 6 inches to 9 inches of their base. Some shoots may with advantage be cut down right to the ground each year.

Albert Stopford  
Comtesse Risa du Parc  
Corallina  
Dainty  
Dr. Grill  
Enchantress  
Fairy Queen  
Fusion  
General Schablikine  
G. Nabonnand  
Homère  
Isabella Sprunt  
Mme. Berkeley  
Mme. C. P. Strassheim

Mme. Jean Dupuy  
Mme. Lambert  
Maman Cochet  
Marie d'Orleans  
Marie Segond  
Marie van Houtte  
Medea  
Mrs. B. R. Cant  
Peace  
Safrao  
Safrao à fleur rouge  
Souv. de S. A. Prince  
Souv. d'un Ami  
White Maman Cochet

**Very vigorous.**—Most of the following are known as climbing Roses. They are well adapted for covering quickly house-fronts or other warm positions. For this purpose the annual growths should be left their full length. Many of them make glorious standards. If used in this way or as free bushes, the shoots should be pruned back to about 2 feet to 3 feet of their base.

Belle Lyonnaise  
Billard et Barré  
Climbing Devoniensis  
" Mme. de Watte-  
ville  
" Niphetos  
" Papa Gontier  
" Perle des Jardins  
Dr. Rouges  
Duchesse d'Anerstedt  
E. Veyrat Hermance  
François Crouse  
Gloire de Dijon  
Groschertzog E. Ludwig

Henriette de Beauveau  
Le Soleil  
Mme. B. Levot  
Mme. Berard  
Mme. C. Monnier  
Mme. Chauvry  
Mme. Eugène Verdier  
Mme. Jules Graveriaux  
Mme. Jules Siegfried  
Mme. Moreau  
Maréchal Niel  
M. Desir  
Noëlla Nabonnand  
Souv. de Viennot.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

March 20. — Royal Horticultural Society's Meeting.

March 22. — Royal Horticultural Society's Colonial Fruit Show (two days).

March 28. — Liverpool Horticultural Association's Show (two days).

**"How to Crop a Small Garden Profitably."**—We have had several letters from correspondents enquiring if fruits may be included in the replies to the questions on the above subject in the March competition. Fruits are not to be included; the idea is to show how a small garden may be cropped profitably with vegetables alone.

**Dinner to Mr. William Marshall, V.M.H.**—A very pleasant evening was spent at the Horticultural Club on the 8th inst., when the floral committee of the Royal Horticultural Society, with members of the other committees, invited Mr. Marshall, chairman of the floral committee, to dinner, and presented him with a portrait of himself. Mr. Marshall has been chairman of the floral committee for twenty-one years. The

chair was taken by Mr. Harry Veitch, who spoke of Mr. Marshall's interest in horticulture and the Royal Horticultural Society, and mentioned that he was the first to flower *Odontoglossum crispum*. Dr. Masters proposed "The Royal Horticultural Society," and Mr. Bilney "The Chairman," which was enthusiastically received. Messrs. R and A. Marshall, sons of the guest of the evening, contributed several songs, and Mr. George Gordon was heartily thanked for the arrangements so successfully carried out.

**United Horticultural Benefit Society.**—The annual general meeting of this society was held on Monday evening last at the Royal Horticultural Society's hall, Mr. H. B. May presided. Financially the society is sounder than ever. During the past year 120 new members were elected, by far the largest number elected in one year. In sick pay the sum of £401 17s. was paid out during the year, while payments from the Benevolent Fund amounted to £134 4s., and from the Convalescent Fund £3 10s. The sum of £2,200 was invested during the year. In this connexion the committee wishes to record its appreciation of the services of its treasurer, Mr. James Hudson. After long and careful consideration, and with the kind assistance of Mr. W. A. Bilney, the rules of the society have been revised; it is hoped that these will serve for many years. A member may now draw upon his deposit account to a limited extent in special circumstances. Altogether £28,800 is now invested, which averages over £20 per member. Mr. Frogbrook was elected on the committee in place of Mr. Kelf, who retired. The meeting closed with the election of officers and the usual votes of thanks.

**Veitch memorial medals** have been awarded by the trustees to Baron Sir Henry Schröder, Bart., for his most valuable help in bringing the new Hall scheme to a successful issue; to Sir Thomas Hanbury, K.C.V.O., in recognition of his gift of Wisley Gardens to the Royal Horticultural Society; and to Mr. E. H. Wilson in commemoration of his splendid work as a plant collector in China. The trustees also made a grant of £25 to the funds of the Lindley Library; this we are sure will be very welcome.

**Royal Horticultural Society's examination of gardeners in public parks and gardens.**—"The council of the Royal Horticultural Society consented to hold this examination, at the suggestion of certain public authorities charged with the administration of the public parks and gardens of this country, who desired to obtain some independent and competent test of the relative knowledge possessed by the men they employed. The examination was partly written and partly *visu voce*. Ninety candidates entered their names, and of these only one was absent; but another was taken ill during the course of the examination and was obliged to resign. Speaking generally, the answers, both written and *visu voce*, revealed a distinctly remarkable absence of observation and thought, combined with by no means too high a degree of ordinary education. Most of the candidates appeared to possess a rough and elementary knowledge of the subjects enquired of, but were unable to give expression to their ideas in coherent and intelligent language. This may be accounted for, perhaps, by the fact that it was, to the great majority, their first experience of an examination, and many of them showed evidence of a quite unnecessary degree of nervousness. The examiners have given credit wherever possible for good intentions, and regret that, even so, they are unable to include more names in the class list. The examiners desire to impress on the candidates the absolute necessity of observation as they pursue their daily work, and the application of thought as to the why and the wherefore of what they do and what they notice. The examiners urge the unsuccessful candidates not to be disheartened by failure in their first

attempt, but to set themselves carefully to observe the things about them, and to think out for themselves the reasons of their different operations. Twelve months of this, coupled with enquiry from their superiors on points which seem difficult to fathom, will probably result in their success at the next or at some subsequent examination. The examiners notice with regret that they have felt obliged to disqualify one candidate for evident copying."—William Crump, C. R. Fielder, George Nicholson, Owen Thomas, Edward White, and W. Wilks, examiners. Montague William Dance, Abbott's Inn, Andover, was first in Class 1 of Division A; Arthur George Barnes, 1, Gassiot Road, Tooting, S.W., first in Class 2; and C. Pogmore, 13, Kingston Road, Leytonstone, first in Class 3. Alfred Prince, Brockwell Park Lodge, Herne Hill, S.E., was first in Class 1, Division B; Vincent Cookram, 18, Heathwood Gardens, Old Charlton, Kent, and A. J. Hartless, 46, Wingate Road, Hammersmith, W., were first in Class 2; and Joseph Strong, 27, Brailford Road, Tulse Hill, S.W., was first in Class 3. Copies of this report may be obtained from the Royal Horticultural Society, Vincent Square, Westminster, S.W., price 2d. each.

**A public garden on the River AVON.**—On the banks of the Avon at Evesham, a strip of land known as the Workman Garden has been rendered a most attractive place of summer resort, and has proved a great acquisition to the town. It is situated between the Cheltenham road and the river, and on the road side is well sheltered and screened by a shrubbery and plantation of trees. Notable among the latter are well-grown specimens of the Redwood (*Sequoia sempervirens*), about six of which have double stems from near the ground line, and all flourish in a remarkable degree. It is unusual to see this tree as an occupant of town gardens, but the atmosphere of Evesham is a favourable one for vegetation, and upon higher land, on the Greenhill side of the town, ornamental shrubs and trees grow extremely well. A beautiful feature in the Workman Garden is a fine avenue of Limes close to the river, and extending from the bridge the whole length of the ground. The trees have been allowed to develop freely and naturally, and the situation being a favourable one, they show the good qualities of the Lime as an avenue tree to perfection. A good selection of shrubs is grown in the borders with a few of the more distinct hardy plants, but no attempt is made at "bedding" in the ordinary sense of the term. Some additions might well be made to the trees; for instance, the deciduous Cypress, *Taxodium distichum*, a near relative of the Redwood, would furnish a fine contrast to the latter by its bright green foliage early in the summer.—R. C.

**Willow for cricket bats.**—In an article in THE GARDEN of the 24th ult. it is stated that at a sale of Willow trees on Sir Walter Gilbey's estate the trees sold at the rate of 11s. 6d. per foot. As buyers of one of the two best lots, we should be glad if you will kindly contradict this, as it is too much by at least one-third, and might be misleading to others who have Willow trees to dispose of. At the same time, we should like to give a little advice to those about to plant Willow trees, as recommended by the writer of the article. As one of the largest buyers of Willow trees, we often come in contact with gentlemen who have planted thousands of Willow sets on their estates, and who take little or no trouble to find out if they are setting the right sort for cricket bats, which is the only sort that pays; the consequence is that when the trees are large enough to cut down they will find they are worthless. We should advise anyone not understanding the different kinds of Willows to get expert advice as to the sets before planting them, and so save themselves loss of money and trouble, which will be the result if the wrong kind of Willow is

planted.—SHAW AND SHERWESBURY, *Queen's Square, Nottingham.*

In reply to Mr. Simpson-Hayward and others, the best Willows for the manufacture of cricket bats are the White or Huntingdon (*Salix alba*) and the Bedford (*S. russelliana*), the former, in my opinion, being preferable. They are of the easiest culture, small cuttings inserted in autumn or spring soon forming stately specimens; indeed, a post driven into the ground will root freely. Personally, I prefer to insert cuttings in the nursery about the end of August, and plant out permanently when two years old. It should be remembered that unpollarded Willow, viz., trees that have not been beheaded or too heavily pruned, produce by far the best timber for bat-making, and, incidentally, are less liable to the attacks of injurious insects. Cuttings can readily be procured from the nurseryman or from private estates where the trees are grown.—A. D. WEBSTER.

**A new Winter Aconite (*Eranthis ciliciculus*).**—This new Winter Aconite improves vastly on acquaintance, and is a first-rate acquisition, deeper in colour, and much more lasting than the old kind; here, in large masses of 10,000 or so in a patch, it makes a wonderful show, and where it was planted some years ago in small groups, many seedlings are coming up all around. So it seems to be quite at home in its new quarters, and able to become a good colonist.—T. SMITH, *Newry.*

**Callas at Arundel House, Dumfries.**—Seldom does one meet with finer Callas, or Arum Lilies, as they are popularly called, than those in bloom at present in the gardens of Arundel House, Dumfries, the residence of Mr. John Primrose, whose gardener, Mr. J. Allen, is very successful with these valued flowers. The planting-out system in summer is followed, the plants being potted in the autumn. After the pots are filled with roots, they are occasionally top-dressed with some artificial manure. In too many gardens these plants are neglected in summer, being placed out in pots and exposed to sun and rain, with the result that the plants and blooms are puny and poor.—S. ARNOTT.

**Vegetables for home and exhibition.**—This was the subject dealt with at a meeting of the Chester Paxton Society, held at the Grosvenor Museum, recently. The lecturer was Mr. R. Wakefield, Newton Hall, the well-known authority on vegetables and herbaceous flowers, and his carefully-prepared paper revealed many useful hints for the successful culture of vegetables for all purposes. He also touched upon the insect pests that affect vegetables, and the trenching, preparation, and manuring of the soils at the proper periods. He deprecated anything in the way of monstrosities for the exhibition table, and strongly advocated that in judging vegetables quality should always have preference to size or quantity. An animated discussion followed the reading of the paper, in which Mr. Joseph Ryder (the chairman) and others took part. A series of questions were put to Mr. Wakefield, which were satisfactorily answered. Afterwards, on the initiative of Mr. Miln, he was accorded a hearty vote of thanks.

**National Dahlia Society.**—The report of the committee for 1905 states that "the past season was very favourable for Dahlia growing in most parts of the country, and a magnificent display was made at the annual exhibition held on September 7 and 8, at the Crystal Palace. The total number of exhibits showed a large increase as compared with the previous year, the greatest increase being in the amateur classes, in which competition was very keen. The quality of the blooms staged by the nurserymen was maintained at the high standard of the previous year, while that of the blooms staged by amateurs again showed a very marked advance. The publication of the Official Catalogue and Culture Guide in 1904, and of the

Supplement in 1905, has been of the greatest assistance to members. A Supplement for 1906 will be issued in January, and every effort will be made to keep the members informed year by year as to the latest and best varieties to grow, both for exhibition and garden decoration. Some 150 new varieties were submitted to the inspection of the judges, who awarded certificates to sixteen of them. On September 26, a meeting of the committee was held at the Horticultural Hall, Vincent Square, on the occasion of the fortnightly show of the Royal Horticultural Society. Sixteen certificates were awarded to new varieties. The total number of certificates awarded to new varieties in 1904 was twenty-one, and in the present year 32. The committee are pleased to state that the number of new members joining the society during the year was 32. A good proportion of them exhibited, and nearly all are enthusiastic Dahlia growers. The committee are convinced that there are numerous admirers of the Dahlia who are unaware of the existence of the society, and that many of these would be glad to join if the advantages of membership were placed before them." The hon. secretary is Mr. H. L. Brousson, Boyton, Fooks Cray, Kent.

**Presentation to the Earl of Elgin's gardener.**—On Saturday evening, the 3rd inst., a large number of the friends of Mr. William Lumley, who has for thirty-four years been gardener to the Right Hon. the Earl of Elgin, Secretary of State for the Colonies, at Broomhall, Fifeshire, met in the Royal Hotel, Dunfermline, for the purpose of presenting Mr. Lumley with a token of their esteem on his leaving Broomhall. The presentation took the form of a very handsome marble clock and a purse of sovereigns. Mr. Campbell, Keavil, acted as the spokesman of the subscribers. Mr. Lumley is leaving Broomhall to take up an appointment as gardener to Lord Bruce at Culross Abbey.

**Edinburgh Chrysanthemum Show.**—The Scottish Horticultural Association has issued the prize list and rules of the Chrysanthemum exhibition which will be held in the Waverley Market, Edinburgh, on Thursday, Friday, and Saturday, November 15, 16, and 17, when prizes to the amount of upwards of £470 will be awarded. The prize list has been revised with the usual care, and embraces classes for Chrysanthemum blooms to the number of 30; for floral exhibits, 9; Chrysanthemum plants, 15; other plants and groups, 21; fruit, 17; and vegetables, 26. There is little doubt that the exhibition will maintain the reputation it has secured as being one of the finest and best managed of the winter shows in the United Kingdom. Schedules can be procured from the secretary, 19, Waverley Market, Edinburgh.

**A warning from the Cape.**—A reader of THE GARDEN in Cape Colony sends the following cutting from the *Cape Times*, and hopes it will be inserted. He writes: "I am an ex-gardener, and left the profession of which I was, and am, very fond for one that pays better, and have no wish to see a fellow lured out to South Africa for a mere pittance. I trust you will make the matter known. Board and lodging cost from 18s. to 21s. per week for working men in Cape Town, 25s. with washing; boarding out without lodging is only 2s. 6d. to 3s. less." The extract is as follows: "A PRINCIPAL SALARY.—The Corporation Markets and Public Gardens Committee reported that the committee have considered as to the filling of the vacancy caused in the staff of the superintendent of the public gardens through the resignation of the first journeyman gardener (A. Archbold), which takes effect from March 14 prox. Your committee have caused advertisements to be inserted in the local papers notifying the vacancy, and are advised by the superintendent of the gardens that no applicant has been found at all suitable for the position at the wages provided in the

estimates for the current year. Your committee therefore recommend that the council secure the services of a suitable man through the London agents, under agreement for three years, at a weekly wage of 36s., the duties to include alternate Sunday duty, and extra duty on alternate weeks in connexion with the conservatory fires, and the unhooking and hooking of the gates at morning and night. The council provide sleeping quarters. Mr. Baxter moved that the report be referred back. It was evident that the wages were too low, even for a local man, and it was proposed to get a poor devil from England at 36s. a week. Mr. Alexander said that the matter was already on the estimates, and he did not believe it was possible now to increase an item. Mr. Friedlander said it was a disgraceful thing to go outside the Colony and get a man in England at a wage which the man himself would think very good, but which all knew was utterly inadequate. He contended that they would be deceiving the man by getting him out at such wages. Sir William Thorne: You would not get a good Scotchman for that. (Laughter.) The motion to refer the matter back to committee was agreed to."

## RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for March contains portraits of

*Arachnanthe Annamensis*.—Native of Annam. This is a very handsome Orchid, closely allied to the *Vandas* and *Renanthera*, and coming nearest *A. moschifera*. It produces tall spikes of large flowers of a most curious and abnormal form, and of a bright red-brown colour, with numerous irregular yellow bands. It was introduced by Messrs. Sander, to whom it was sent by their collector, W. Micholitz, and first flowered in the Royal Botanic Garden, Glasnevin, Dublin, in 1905.

*Erica terminalis*.—Native of Southern Europe. This is a very pretty and free-blooming Heath, producing in great profusion bunches of small pink flowers.

*Lonicera tragophylla*.—Native of China. This is a very handsome and quite hardy Honeysuckle, with large bunches of bright yellow flowers. The buds before expansion are of a deep orange colour. This is one of the many fine plants sent to Messrs. Veitch by Mr. E. H. Wilson.

*Polygala appetalae*.—Native of Lower California. This is the only member of its family that attains the dimensions of a tree. It produces long terminal spikes of very pretty round-petalled, rosy purple flowers. The portrait was prepared from specimens sent from La Mortola by Sir Thomas Hanbury, K.C.V.O., in July, 1905.

*Ceropegia fusca*.—Native of Grand Canary. This is a plant of no beauty and of merely botanical interest. It produces bunches of dull purplish flowers, and is so unlike the other members of its family that when out of flower it might easily be mistaken for a *Euphorbia*.

The March number of the *Revue de Phyticulture Belge* figures *Epiphyllum delicatum*, a pretty form with white flowers, shaded with pale violet. W. E. GUMBLETON.

## THE WINTER CARNATION SHOW.

SOME FINE VARIETIES.

AMERICAN varieties figured largely in the recent Carnation show, and I think everyone will admit that we have never seen such a fine display; it should incite English growers to work on this section and further improve them. We already have some good English-raised varieties from them. In Messrs. H. Low and Co.'s collection was shown *Coronation*, a pleasing shade of pink. I heard of enquiries for this from an American who saw it





DENDROBIUM NOBILE ALBUM.

some time ago. Liberty, a very fine scarlet, was in the same collection, and is also an English-raised variety, which, I think, will prove quite as valuable as any of the Americans. In Messrs. Outbush and Sons' exhibit was General Kuroki, another fine scarlet, which received an award last March. This has fully sustained its character. The flowers are of good substance, large and full, with a good calyx, and very bright in colour. In this exhibit there were also some fine blooms of Malmaison Princess of Wales. From Mr. Burnett, Guernsey, came the finest new variety seen, and the only one which gained an award. It was named Mrs. H. Burnett. The flowers were of perfect form, of good size, with broad petals, and of a lovely shade of deep blush pink. The stems were long, but not quite so thick as in most of the American varieties. The Mikado, a curious shade of mauve or heliotrope, was a distinct variety, and a colour that may please many. Several other unnamed seedlings were shown by the same exhibitor. Nothing quite new in American varieties was shown, yet a good opportunity was given for comparing the merits of the various sorts already known.

Taking the white varieties, I still think Lady Bountiful and The Belle are the two best. The only thing against Lady Bountiful is that it is inclined to have a shading of pink, but the flowers are of perfect shape. White Mrs. T. W. Lawson was very good in most of the exhibits, and the stiff stems are a recommendation, but the flowers are not a good shape; yet as shown it was better than I had previously seen it. Queen Louise was fairly good, but not so large as those named above.

Among the blush pink there was nothing to equal Enchantress. I may here mention that Mr. A. F. Dutton has a white sport from it, and

exhibit this was very fine; the pot plants showed it to be remarkably vigorous.

In scarlets it is difficult to make a selection. The Cardinal is certainly one of the best. Flamingo is good, but more inclined to burst. Christmas Eve, as shown by Mr. Dutton, was very good, but not quite so intense in colour. In deep crimsons Harlowarden is good all round. Harry Fenn is, perhaps, the next best, and Governor Roosevelt is still worth attention. The only yellow variety noted was Dorothy Whitney, but this was not quite a pure yellow, having pink stripes.

We have heard much of the variegated Mrs. T. W. Lawson, but I should certainly give the preference to Mrs. M. A. Patten, which was well shown, and I have previously noted it as the best. I find that some of the American varieties are as much inclined to deteriorate as our English sorts are; and I believe the only way to keep up a vigorous stock will be to plant out some of the strongest plants in good ground for stock purposes only, and not allow them to flower the first year. There may also be an advantage in a change of stock. Heath growers have long made a practice of changing stock, and it should be equally necessary with Carnations, unless some are grown under different conditions specially for stock. When I grew the old favourite Miss Joliffe in large quantities I found a great advantage in selecting some of the strongest plants and giving them larger pots for stock purposes.

A. HEMSLEY.

[The recent exhibition of winter-flowering Carnations served to show what a large number of beautiful varieties there now are in cultivation. The term "winter-flowering" is, however, somewhat of a misnomer, for their season extends far beyond winter.—ED.]

I find some American growers have also got a similar sport. If these sports prove constant and sustain the vigour of the parent, we shall have a most valuable Carnation. Fair Maid, which is a shade deeper in colour than Enchantress, was hardly so good as I have previously seen it, but it is a useful variety, and all growers speak well of it. Floriana was fairly well shown; this is a shade deeper still, but is a little inclined to vary. In the exhibit from Mr. C. Englemann, which gained the gold medal, and in which upwards of 1,200 blooms were shown, Fiancée was one of the most prominent. This is of a pleasing shade of rosy pink, large full flowers on very strong stems. I have seen this at various times, but was never before favourably impressed with it; it certainly varies much, and I find that in America, where it had such a high character last year, all growers do not succeed with it. One grower, writing in the *Florists' Exchange*, says that it has proved so worthless that, instead of offering it, he is throwing away the whole of his stock. It is as well, however, to bear in mind that all Carnations are inclined to vary or sport, and a careful selection of stock may be all that is needed to keep this in the list of best varieties. Mrs. T. W. Lawson still holds its own, and was very fine in all exhibits, but this has a dangerous rival in Nelson Fisher. In Mr. S. Mortimer's

## DENDROBIUM NOBILE ALBUM.

VERY few of the older growers of the most popular species of all Dendrobiums, viz., *D. nobile*, ever thought a pure white form would be found; now, however, plants are often met with. At present we do not see them so often as we shall, for a plant that produces such beautiful pure white flowers must eventually be grown by everyone that grows Orchids, even if they do not grow Dendrobiums generally. So far it has proved to be weaker in growth than the type, but I do not call it by any means a bad grower; on the contrary, with us it increases in strength year by year. The plant illustrated was grown from a cutting in three years, so that should dispel any idea that because it is an albino it is weakly.

Gasston Park Gardens. W. P. BOUND.

## THE ROSE GARDEN.

### JOTTINGS ABOUT ROSES.

ON STOCKS.—THE BRIAR.

(Continued from page 134.)

ONE other point of which I must not omit mention applies principally to Tea-scented Roses. The trouble with many of these in our climate is not that they make too much wood, but that they make too little. Their constitution is very often weak and their growth indifferent, and, if the possession of tap-roots will help them to make more vigorous wood, then in my eyes yet another argument is adduced towards the use of the Briar seedling as a stock for light soils.

If the Rose is to be effective in the garden, it is obvious that we must have healthy and vigorous plants, and that will stand the sudden changes of temperature to which our climate is so liable. Anyone who has tended the seedling Briar—sown the seeds in March and lifted nice stocky young plants in the following autumn or winter—cannot fail to have been struck with their early maturity and great vigour the year following. Budding "is an art which does mend Nature," and so it is only logical to conclude that in carrying it out we should adopt the most natural way of mending Nature; and the Briar seedling undoubtedly is the most advantageous stock which the rosarian possesses.

ROSA LAXA.

I propose to postpone the consideration of the standard Briar stock to a future article, because I wish to briefly touch upon the merits and demerits of certain other stocks about which the horticultural Press preserves a singular reticence. First of all there is the species that heads this note, which is being largely used both for standards and dwarfs on the Continent. The Luxembourg growers hold it in high favour both for budding outdoors as well as grafting under glass. It is a vigorous species, rooting quickly from cuttings, and differs from the ordinary Briar in its smooth wood and colour of bark. Nicholson, I notice, gives its habitat as Siberia. As far as my experience goes it seems to suit both Teas and Hybrid Teas all right, though it is a little more apt to "sucker" than the ordinary Briar. It is now being used in some English nurseries, but from what I have seen and heard is scarcely likely to supersede the Briar. I have a number of laxa standards, and among them La France does splendidly, though I should hesitate to say whether the flowers out from it were in any way superior to those obtained from a Briar standard.

## ROSA CINNAMOMEA.

In Holland this species is being largely used as a standard stock, and in a large English nursery I saw quite recently a big batch of standards of it worked with Teas, Hybrid Teas, and Hybrid Perpetuals. Without any experience of the stock, and with only just a cursory inspection, it was difficult to form any opinion, but I should imagine that the growth of the stems is a little too thin, and that this stock requires the moist ground of the Dutch nurseries to form really good thick stems.

## ROSA POLYANTHA.

This Japanese species was first recommended as a stock in the *Journal des Roses* for, I believe, the year 1879. It is, of course, of exceptional vigour, perfectly hardy, and the smallest pieces

of branch and stem root as readily as Willows. It makes a good stock for the majority of Tea-scented Roses, and is quite suitable for some of the weaker growers, e.g., Ma Capucine, which is not at all a success upon the Briar. I should well imagine that Meta, Beryl, Luciole, Yvonne Gravier, and other poor growers would succeed better on this stock. Its great merit consists in the fact that it throws out an abundance of roots close to the surface in the same way as the Paradise stock now so generally used for Apples. When visiting M. Maurice L. de Vilmorin last autumn he told me that he worked the majority of his Rose species on this stock; in fact, little or no budding is done at Les Barres, but as soon as November arrives grafting is commenced under glass, and from what I saw the stock certainly seems to suit most of the strong-growing species contained in that unrivalled collection.

ROSA INDICA  
MAJOR.

French growers frequently make use of this as a stock, and in the South of France it may be of some use, and for work under glass, but for outdoors in England it is simply worthless. Mr. E. H. Woodall's note on page 313, Vol. LXVIII., telling how successful that exquisite, but here "miffy," Tea-scented Rose Georges Schwartz is on the Riviera, when worked upon this stock, throws some light on the importance, with our varying soils and climate, of testing the different stocks more thoroughly than is now the case. I am at one with Mr. William Robinson when he says, "I am haunted always by the fear that we have lost many of our finest Tea Roses in this way," for there are really very few trade growers who seem to take an intelligent interest in any stocks beyond the orthodox Briar and Manetti. Georges Schwartz affords a very good example of this. I well remember procuring a plant when it was first distributed in England, and it was sent to me, as to everyone else, worked on the Briar. By the following autumn almost everybody had discarded it because it did not hold its foliage and would not grow; but whether anyone took the trouble to

try it on any other stock is a matter of considerable doubt.

With regard to indica major, I am very much afraid that a good percentage of the novelties received from some French growers are worked upon this stock, with the result that many a good Rose is condemned because it happens to have been grafted in this way. I have seen suckers of this stock coming away from some of these new French varieties, and it certainly behoves rosarians to be careful always to buy their plants from good houses, and not to be led away to purchase the cheap but worthless rubbish with which the English market has been flooded of late years.

Worcestershire.

ARTHUR R. GOODWIN.

## NEW AND RARE PLANTS.

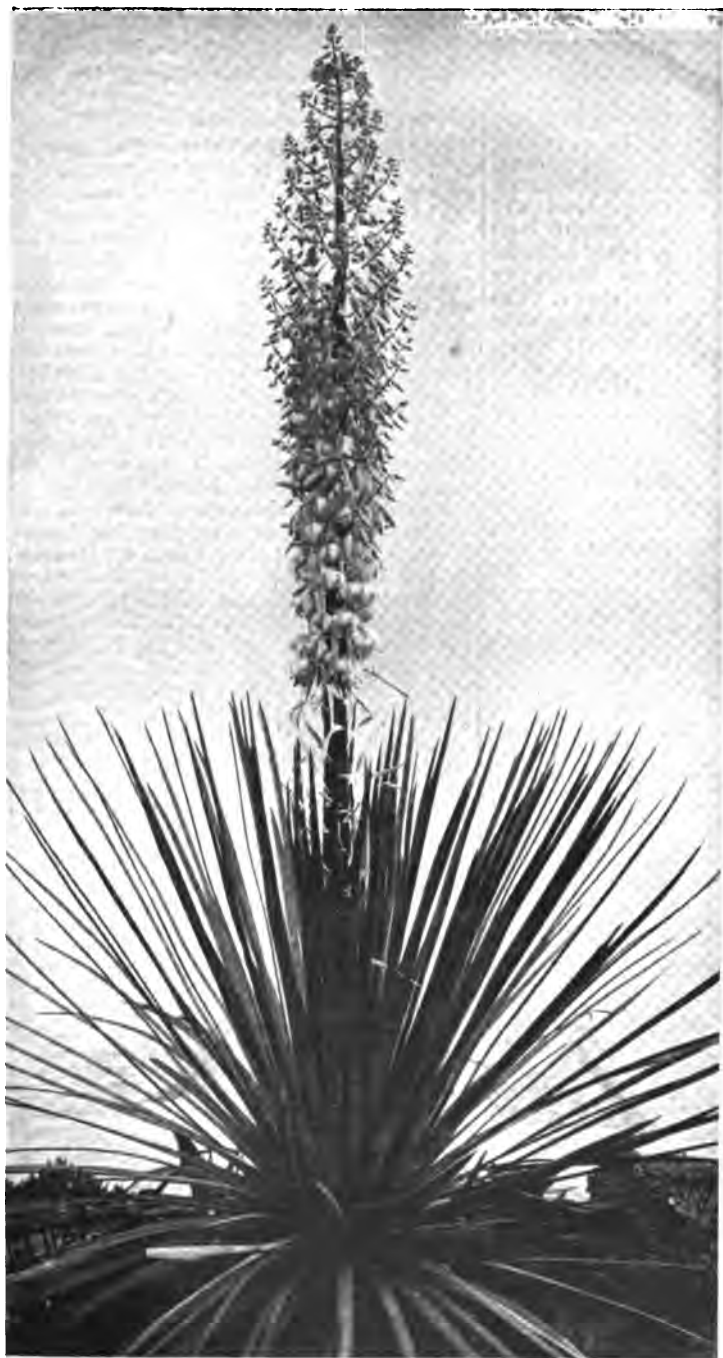
## A NEW YUCCA.

A NEW species of Yucca in the way of Y. Whipplei is now flowering for the first time at Kew; it is called Y. nitida. In THE GARDEN, Vol. XXXV., page 561, there is an excellent figure and also a full description of Y. Whipplei as it grows in the gardens along the coast of the Mediterranean, where for many years it has been a striking and beautiful feature, the climatic conditions there being similar to those of Southern California, the home of Y. Whipplei. But we cannot grow it in English gardens, the damp of our winters rather than the cold being against it in the open air, and greenhouse cultivation decidedly disagrees with it. The discovery, therefore, of a second species of the Hesperoyucca section, which, whilst possessing at least as much beauty as H. Whipplei is as easy to cultivate in a sunny greenhouse as a common Agave, is decidedly good news, and we appear to have such a plant in Y. nitida as represented by the beautiful specimen in the Succulent house at Kew, which has been in full flower since mid-February.

Y. nitida has no distinct stem, the straight ensiform spine-tipped leaves forming a rosette about 6 feet through, each leaf measuring 3 feet in length and 2 inches in width at the base, narrowing gradually upwards to a hard horny brown tip. The stout flower-scape is 7 feet long, the upper half clothed with numerous branches bearing from six to eighteen flowers each, and grey-white scarious spine-tipped bracts. The flowers are star-shaped, 3 inches across, pale green yellow, tipped with violet, the stamens an ovary white, whilst the flat topped bright green papillate stigma, "emerald-like in a clear star," gives beauty to the flower, and is at the same time the principal character which separates this section of Yuccas from all the others, Y. Whipplei and Y. nitida being the only two known to possess it. Possibly this new species may prove hardy, in the warmer parts of the British Islands at any rate, and we hope the Cornish gardeners will secure plants of it, for we have never seen Yuccas anywhere more at home than are some of the sturdy species in the South West of England.

## COREOPSIS GRANTII.

THE Coreopsis are popularly known as showy North American herbs, perennial or annual, the annuals being pretty summer flowers, and the perennials valuable late-blooming or autumn plants. But the genus



A NEW YUCCA. (Y. NITIDA)

is also represented in other parts of the world, there being no less than a dozen species in Tropical Africa alone, some of which are decidedly showy. One of these is *C. Grantii*, recently introduced from Uganda, where it is common at elevations of about 5,000 feet, flowering in December. Some plants of it were tried in the open air at Kew last year, and although they grew well, they showed no signs of flowering when the frost killed them. Other plants kept in pots and protected from frost were more satisfactory, as they formed compact specimens 2 feet high, with elegant bipinnate leaves, and in midwinter they came into flower, being at their best in February, when the

the name of "*Coreopsis* sp., showy, from Uganda," but it is more than likely that they were tried in the open along with other *Coreopsis* and consequently failed.

## COLOURED PLATE.

PLATE 1294.

### THE LOGANBERRY.

**W**HEN this useful fruit was first introduced, about ten years ago, many fruit growers had doubts as to its utility, as they knew from past experience that the American

Blackberries were not all successful when grown in this country. I think it one of the best and most useful introductions we have had of late years, although some stocks produced from seed are said not to fruit so freely as those from layers or divisions. The true Loganberry fruits very freely, and is not at all fastidious as regards soil or position.

The plants well repay for feeding in the way of surface-dressings at this season. The Loganberry is valuable for cooking purposes, and, indeed, for dessert by those who do not object to a fruit of slightly acid flavour. If treated as a Raspberry it does not do so well. Given room it is a grand cropper; the fruits are then large and well coloured.

#### CULTURE.

This is simple in the extreme if a few details are

carried out. I do not grow it in the same way as the ordinary Raspberry, though the latter is one of the parents, the Blackberry being the other. With a well-grown Loganberry it is quite usual for the canes to grow 10 feet to 15 feet in a single season, and these growths bear fruit three parts of their length. It may be treated more like a Raspberry, but the results are not so good. Few plants are more profitable than this if it is grown as a pillar plant or, as many could grow it, over an archway. We grow our plants on a north wall. In 1900 a dozen plants were placed against the wall about 12 feet apart; now half-a-dozen cover the space. By growing

on a wall it is an easy matter to net the fruit, but care is required to protect the new growths. Each year they spring up from the base, and are the fruiting wood for another season. As soon as the fruit is cleared, the old canes—those that have borne fruit—are cut out and the new ones are trained in to take their place. The stronger they are, the more fruit will be obtained the next season. The plants, unlike the Raspberry, increase yearly in size and fruitfulness, in a rich soil.

There are other ways of culture; for instance, we have a number of plants on a high east wall. These are for dessert, and those on the north for cooking purposes. The fruit is much liked in a preserved condition; it is less sweet than the Blackberry, and, being so distinct from the Raspberry, is much liked by many. If planted like the Raspberry it is best to train the shoots along wires or supports, not in an upright position, but horizontally, as when trained along wires more room can be given.

#### PLANTING

is best done as early in the winter as possible, as the Loganberry is early in starting into growth. When the plants are well established the best growths only at the base should be retained. In this respect it differs from the Raspberry, as the new growths at the base are close together. They do not spread much, and when young are very tender; rough winds soon injure them. Their fruiting season is during July, and on a cool site continues into August. In the North they are at their best in August. The previous year's growths may be shortened back in the winter or grown full length, according to space. We top-dress each autumn, and give liquid manure in the summer months to old plants.

The fruit from which our coloured drawing was made was kindly supplied by Messrs. William Fell and Co., Limited, Hexham. Messrs. Fell write: "In December, 1896, we first imported this fruit from America, and have since then had opportunities of inspecting the Loganberry in fruit, and can recommend it as a really good introduction. It is a true hybrid between the Red Raspberry and the Blackberry. It is perfectly hardy."

G. WYTHES.

## THE FRUIT GARDEN.

### THE SMALL ORCHARD.

**I**N your issue of the 10th ult., "G. H. H.," although seemingly agreeing in principle with the suggestion that the planting of small orchards in association with workmen's cottages in country districts would be a desirable innovation, at the same time throws doubts on the practicability of the scheme, giving as one reason that such cottages give the owners little or no return on the cost of building, and implying that to add an orchard would be to place a further burden on the owners' shoulders. Surely this is what it would not do. Such an orchard, if planted by a specialist in such work, would cost but little, and once planted, if well cared for, would increase annually in value without any further cost to the owner for at least twenty-five years, and after that would remain in full profit for another twenty years or more. Cottages we know are sometimes tenantless, and therefore a dead loss for the time being; but a good orchard never, or seldom, fails to give a good return.

What is the use of teaching the children of our workpeople the elementary principles of gardening in our schools, or of our County



A NEW COREOPSIS.

photograph reproduced was taken. The flowers are fully 2 inches across, and their colour is a bright yellow with a zone of a darker shade on the lower half. We have, therefore, in this plant a very useful acquisition for the cool house and conservatory, which may be grown along with and treated in the same way as *Chrysanthemums*, to flower after the latter are about over. Whether this species is perennial or annual we are not yet in a position to state, but it is likely to produce seeds, and probably it can be propagated from cuttings. We are informed that seeds of this plant were distributed from Kew last year under





THE LOGANBERRY.







THE CAPE HYACINTH. (GALTONIA CANDICANS.)

piece, and the only way then to obtain it is by giving the farmer notice to quit, which is not reasonable. When a farm is vacant in the ordinary course, the opportunity should be taken to rearrange the acreage, so as to be able to increase some of the adjoining small holdings. As to the unwillingness of landlords to bear the cost of planting, this, in my opinion, is due very largely to the unwillingness of tenants properly to look after the trees when planted, and I have had to insert a clause enabling me to enter and do the necessary work to the trees if it is not done after notice given. The rent should be progressive, and not exceed the grass value until the trees come into bearing, when a higher permanent rent can gradually be paid. H.

If the scheme of the quarter-acre orchards could be carried into effect, what could be done with the produce? With only a few orchards in each village, it is difficult to dispose of the produce at anything like a remunerative price. Villages are often situated twelve miles or more from the nearest town, with perhaps half that distance from the railway; the cost of transit takes one-third of the profit. It naturally follows that if every cottager had his fruit orchard the market would become so glutted that there would be no profit at all. COUNTRYMAN.

## THE FLOWER GARDEN.

### CARNATIONS FOR WINDOW-BOXES.

CARNATIONS are little used as plants for window-boxes in this country, yet for this purpose they are well suited, and on the Continent are largely made use of. One of the German gardening papers gives an excellent illustration of a Carnation plant on a window-ledge, and what is more interesting still is the fact that this variety is of hanging growth. A correspondent says he has noticed for some years, on the window-ledges of private houses, this brilliant dark carmine-red Carnation of true hanging growth, which at flowering

time presents a surprisingly beautiful appearance. Apparently, he says, the plants are from two to three years old, and often carry from thirty to forty blooms. He goes on to say that cuttings rooted in spring produce plants that bear in October and November upright flower-stems. If carefully wintered the same plants flower again in early summer, and then they assume a hanging form. Many have maintained that this is the old Napoleon III., but the writer of the note says it is quite distinct. This Carnation is offered for sale under the name of Feuerköinig die Unermüdliche.

### THE GALTONIA (HYACINTHUS) CANDICANS.

THE bulbs of this handsome plant should be planted 4 inches deep on a layer of sand, placing them 6 inches or 8 inches apart in clumps. Planting may be effectually carried out from November to March. In good soil they attain a height of from 3 feet to 4 feet, and are then clothed with beautiful white pendulous bells, the flowering period being from June to August. The spikes are excellent for cutting to fill large vases, and may be associated in beds or border with the beautiful Delphiniums or Salvia patens. Their full beauty is then shown to great advantage. They also look well with Gladiolus brenchleyensis. So soon as the spikes of the Galtonia cease to be attractive the faded blooms should be removed to throw the vitality of the plant on the bulb for future display. Increase of stock can be effected by offsets.

Crowcombe, Taunton.

W. A. SMART.

### FIELDS OF NARCISSI.

WORTHING is famous as a market gardening centre, more especially for the cultivation of fruit perhaps than of flowers. Grapes, Figs, and Tomatoes are grown there in immense quantities for the London market. Narcissi, however, are also largely grown, as may be judged from the accompanying illustration. The bulbs are grown among fruit trees, and the land is thus made to yield a double crop.



GATHERING STAR NARCISSI IN MR. AUSTIN'S FARM, TARRING, WORTHING.

Councils going to the expense of employing teachers and lecturers throughout most of our counties to teach horticulture, if during their manhood the workers, when settled in houses of their own, are not to be afforded an opportunity of putting their knowledge into practical use for their own and their country's benefit? The orchard, of course, would belong to the owner of the land, and its value, both to its owner and to the tenant at the time of the tenant's entry, would be mutually agreed upon, and by most landlords, after securing moderate interest for the capital expended, on terms favourable to the tenant. But the benefits a well-cropped garden and a fruitful orchard would confer on a workman and his family cannot be measured alone by the return in cash it may bring either to the owner or to the tenant. To the balance on the right side must be added the encouragement it would give to the growth of industrious habits among the worker and his family, besides greatly helping to deepen his own and his children's interest and attachment to their surroundings. I am thankful to know that many owners of land are now awakening to the fact that no better asset in the way of improving either their farms or their cottages can be found than a fruitful orchard when well planted by those who understand the work. OWEN THOMAS.

My experience, as a landlord, is that the difficulty about increasing the size of a cottage holding comes principally from the tenant farmer. Try to arrange with a farmer to surrender an acre or two of his land with a view to its being cultivated by a labourer, and you are at once told that the farm would be useless without that particular

## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**VIOLETTA PANSIES.**—With the approach of the planting season interest in these charming miniature-flowered Tufted Pansies is again revived. Some of the earlier Violettas do not perpetuate themselves very readily, and for this reason stock will always be somewhat scarce. Those who already have plants in their garden should, therefore, make the most of them. The original of the type Violetta is still one of the best. This plant is very strong, and new pieces, no matter how small they may be when first put out, develop into charming tufts in the course of a season. The Violettas may now be had in blossoms of the purest white, creamy white, primrose, yellow, china blue, deep blue, purple blue, lilac, and lavender, besides margined and fancy flowers. There are also other small-flowered Tufted Pansies which do not trace their origin to Violetta. Their growth is quite different, and not so tufted as the true Violettas. The true Violettas are obtained by crosses made with Tufted Pansies and Viola cornuta, the latter being used as the seed-bearing parent. In this way we obtain the creeping growth peculiar to the Violettas, which is so well able to withstand the heat of July and August. One plant that has given much pleasure of late is a seedling of our raising, which we have named Cymbeline. The cuttings, inserted quite late in last autumn, have flowered most persistently through the winter. They are inserted in a very shallow span-roofed frame, and appear to revel in the conditions therein provided. The colour is a shade of pale lavender, with yellow eye, and the flowers are rayless. During the dull winter days these dainty little flowers are much appreciated. We have quite a number of interesting novelties left over for another season's trial, and the small bowl of miniature blossoms portrayed in the accompanying illustration will give some idea of the beautiful form and pleasing character of some of last year's seedling sorts. The Violettas should, if possible, be planted early, so that the small plants may get well established before the warmer weather sets in. There is the probability that some would-be growers may be disappointed with the small size of the plants as they are usually sent out. The plants are certainly very small, but that, after all, is no real disadvantage so long as the small plants are well rooted. The Violettas should be planted freely in the rock garden. These plants never fail to do well when planted in soil that is deep and rich.—D. B. CRANE, *Highgate, N.*

**Making New Lawns—Seed v. Turf.**—Good turf is very expensive and difficult to obtain. Last season I laid down two lawns—one was made in the usual way with turf, and the other with good, clean seeds; and the lawn that was sown down now compares favourably with the other. The seed lawn cost about one-third less. From the middle of March to the second week in April is the best time to sow seed; but to give the seeds a good chance the ground must be thoroughly cleaned and cultivated some time before the seeds are sown. During the winter a good dressing of manure should be given and dug in, leaving it exposed to the weather till the season for sowing arrives; if it is left till the first or second week in April it will give the seeds of annual weeds a chance to break into

growth, and these will be destroyed during preparation for seeding. The surface must, of course, be made perfectly level if required for tennis, and then rolled firm. This work must be done when the surface is dry, and during the cultivating operations every perennial weed will be rooted out and removed. The seeds must be sown thickly and evenly distributed. To obtain a good lawn in one season do not spare seeds; a bushel will be required for each quarter of an acre plot. Cover the seeds a quarter of an inch deep with very rich compost that has been passed through a builder's screen—the charred garden refuse which has been exposed to a high temperature—and well roll down again when the seeds are covered. When the grass is 5 inches or 6 inches in height put the scythe and broom over it; afterwards the machine will do the work, and by the end of July the lawn will be ready for moderate work. A mixture of superphosphate of lime and nitrate of soda, used at the rate of 3 lb. per square rod, will be useful



VIOLETTA PANSIES.

after the seeds are up. Such a lawn will be freer from weeds than when turfed.

**The Tamarix for a Group on the Lawn.**—This is one of the most graceful little shrubs, stretching out into the grass as an offset from the shrubbery in a somewhat closely-planted group. It grows freely in most places, and is specially noted as a seaside plant. There are several varieties, but I like to see them kept distinct when grouping. They should be pruned rather hard back when the leaves fall in winter.

**The Best Time to Prune Peaches.**—In this matter the Peach is somewhat peculiar, as pruning should be done when the young shoots are only 1 inch or 2 inches long. When the gardener is among his Peach trees, the knife is generally in his hand, and wherever there is a shoot that is not required it should be removed. Therefore it may be safe to say that the pruning of the Peach is always going on. A good deal of pruning is commonly done when the crop is gathered at the end of the summer. All branches not wanted for further work should be removed to let in light and air to complete the ripening of the wood, but the final shortening is usually given just previous to the annual washing and retraining. It is necessary in Peach pruning,

where branches have to be shortened, to cut back to a wood-bud. Some varieties do not produce so many wood-buds, especially if at all lacking in vigour, but wherever the buds are found in triplets the centre one will always be a wood-bud, and in that case the branch may safely be cut back close. In training Peach trees I would always remove all old nails and shreds and use new material, but one cannot always find time to carry this out.

**Some Errors in Pruning.**—Wall trees must, of course, be pruned sufficiently to take advantage of the protection afforded by the wall, and where the spurs are crowded some of the longest should be thinned out; but in pruning Peaches scarcely enough of the old wood is removed to give the young shoots which will bear the next year's crop a chance. It is this overcrowding which encourages insect attacks and produces weakly growth and small fruits. Each young shoot trained in now should have at least 4 inches of clear space for laying in the young wood required for next season. But it is in the pruning of pyramids and bush trees where over-pruning is so common, and this leads to unfruitfulness. Any tree which grows freely in summer and retains all its wood till the winter pruning, and which is then pruned hard back, must go wrong. No tree can be profitable which is treated in this way. There must be a certain annual progress permitted, and the young wood should be thinned in summer and another look round given when the leaves have fallen. This will keep the trees in a healthy and fertile condition for many years. Better leave a tree unpruned than to cut away all the growth made during the season without any regard to future requirements. Even an Oak tree, if all its young growth was cut back, would bear no Acorns.

**Some Hardy Fuchsias.**—To my mind the best and hardiest Fuchsias for the open air are gracilis, Riccartoni, and robusta; corallina also is very distinct and free of growth. I have had fine masses of this by sheltering the crowns with mounds of ashes in winter. In severe winters the growth was cut down to the ashes, but they grew very strongly in the spring. If Fuchsias are to be planted out, I think it is a mistake to start them in heat, as the growth made outside is fresher and more floriferous. A mass of Fuchsias on the lawn is charming in summer.

**Sweet Peas sown in pots early last month** should be thinned, leaving only three or four plants in a pot, which should now be placed in cool frames, to be gradually hardened for planting out in April. Those not having facilities for raising Peas in pots should sow seeds now in the open ground where they are to flower. The ground should be deeply trenched, using plenty of good stable manure. Sow the seeds in clumps, and carefully guard against mice and birds, as they are generally troublesome to seed sown in the open.

**Carnations from Seeds.**—The rage now seems to be for American Carnations, and it might possibly answer someone's purpose to introduce seeds from America. I have had some rather pretty flowers from French seeds. It is interesting work raising seedlings from a good strain of any plants, but the average seeds one gets in

the seed-shop are not worth growing, as very few Carnation growers sell their best seeds. Perhaps the wisest plan is for the beginner to buy a few good plants, cross them, and save the seeds. To do this they should be grown in pots under glass. Seeds sown now in gentle heat, and the seedlings grown on freely, will flower next year.

*Japanese Anemones.*—To form groups, instead of planting the crowns with their thick roots, choose pieces of the roots about the thickness of a lead pencil, or thinner pieces will do. Cut them in lengths of 2 inches or 3 inches, remove 3 inches of the surface soil from the space chosen for the group, lay the pieces of root on the surface 9 inches apart, and replace the surface soil. These will make nice plants that will flower in the autumn, and become a strongly-established colony quicker than the old crowns.

*The Banksia Rose* is very often rendered flowerless by injudicious pruning. This Rose may not require pruning for some years after planting. So long as there is wall space to cover, train the shoots into the wall; but there comes a time when the growths are too crowded, and then pruning may be necessary. The time to prune is immediately after flowering, thinning out weakly growth and removing soft wood which is too weak to make flowering wood. In this way, if the situation is a suitable one, this Rose will flower freely every season. The winter-flowering Jasmine, Pyracantha or Fire Thorn, and *Chimonanthus fragrans* should be pruned now if at all. Lilacs, *Philadelphus*, Ribes, and all flowering shrubs should be pruned, if pruning is necessary, immediately after flowering. In most cases weeding out the straggling branches will suffice to give the bushes a perfectly natural shape.

*The Nettle Iris (I. reticulata).*—This is a very pretty plant on the sheltered rockery. It should be planted in a mass in a sunny position, but sheltered from cold winds. In mild winters it often begins to flower in January. It is not particular about soil, but should not be planted in clay. If the soil is clayey the small plots required should be improved. There are several varieties, and all are worth growing. Half-a-dozen bulbs in a 4-inch pot form an effective decoration for the drawing-room, and may be planted out again afterwards.

### TOWN GARDENING.

*Carnations.*—The month of March is the best time in which to plant Carnations in the town garden; it is much more satisfactory to winter them in pots in a cold frame than to have them out in the garden border. If planted out now from pots they will quickly start into growth and soon make good plants. Protection from sparrows is usually most necessary in the town garden. At this time of the year these mischievous birds soon play havoc with Carnations, eating out the young leaves, and completely ruining the plants unless some measures are taken to put a stop to their ravages. The best plan is to cover the plants with small-mesh wire-netting, but if this cannot be done, the next best thing is to stretch black thread among the plants, or rather just above the tips of the plants. This has the effect of frightening them away to some extent. A little later on they are not so mischievous. Pieces of rag tied to stakes placed among the Carnations also help to keep off sparrows. The bed or border in which the Carnations are to be planted ought to have been dug and manured last autumn; if it was not done then it should be carried out now, using well-decayed manure and placing it beneath the plants.

*Wall Fruit Trees.*—The fruit trees growing on walls in town gardens are invariably pruned far too severely, and the more they are pruned the

less fruitful they become. Many beginners, on seeing a long, strong shoot on their fruit tree, are almost certain to cut it back, which is exactly what should not be done; it simply results in producing other growths more vigorous still. This sort of shoot never or rarely bears fruit, and the tree will never bear a satisfactory crop until such shoots have been got rid of. Instead of shortening them they should be cut out to the base, but this alone will not remedy the evil. The only real remedy lies in root-pruning; this is best carried out in autumn, but with trees containing a large number of gross, vigorous shoots it would be better to do the work now than to allow these shoots to continue unchecked. How to root-prune has often been explained in these columns, so that it is not necessary now to go into details. Briefly, it may be said that a trench should be dug some 4 feet or 5 feet away from the stem of the tree, making it some 2 feet deep; then fork away the soil, working towards the tree, and cut hard back all the long, strong fibreless roots which are found. These will generally be found to be going straight down. After cutting them hard back, relay them in a horizontal direction; then refill the trench, covering the roots carefully, and make the soil firm as the work proceeds.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**S**EED-SOWING through this month and the next demands attention. Each succeeding week will become a busier one for the gardener. The embellishment of the flower garden depends very largely on the successful rearing of the many lovely hardy and half-hardy and tender annuals. I do not wish to condemn altogether what are known as bedding plants, but I do claim that many of the hardy annuals, seeds of which can be purchased at trifling cost, sown outside where they are to flower, making the garden delightfully gay with a comparatively small amount of labour, are infinitely better than beds of *Geraniums*, that may possibly be bright for a week at a stretch, but are often spoilt by rains in late summer or have to be cut to pieces to produce cuttings for another year's stock at the same season. It is generally understood that most heavy soils, if dug in the autumn and allowed to lie rough all the winter, are rendered friable and better suited for seed-beds than when newly dug, as, through being lightly forked over and raked, the soil breaks down into fine particles, so that when the seeds are sown the soil does not present much resistance to the delicate roots. Light sandy soils are quite the best and easiest to deal with when forming seed-beds, as they may be dug at any time except when extremely wet. No hard-and-fast rules can be laid down respecting soils, but as far as circumstances will admit it should be got into the best possible tilth for seed-sowing. If the soil is naturally heavy and cold, it is advisable not to sow seeds too early. This mistake has often proved fatal to many seeds sown when the ground is wet and cold.

**HARDY ANNUALS.**—I advocated sowing a few hardy annuals last month in favoured and sheltered gardens, but all hardy annuals may be sown with safety now, while the majority of annuals succeed, and, indeed, are benefited by being transplanted from the seed-beds to their flowering quarters. A few, such as *Mignonette*, *Poppies*, *Lupins*, and *Larkspurs* are best sown where they are intended to flower, because, being tap-rooted, they do not bear transplanting well. In every case

Sow SEEDS THINLY, whether in the open garden or in frames, boxes, pots, or pans, as many thousands of seedlings are practically ruined by becoming crowded in their early stages. I

have known men who would consider themselves good gardeners to sow a packet of *Lobelia* seed, for instance, in a 10-inch pan, whereas the same quantity of seeds would be sufficient to sow three large boxes.

*MIGNONETTE*, ever welcome in every garden for its delightful perfume, will grow almost anywhere, and may be had in a variety of colours—red, white, and yellow. Two or three sowings should be made at intervals, as sometimes the young seedlings are destroyed by fly. Soot dusted on the plants as soon as they appear is the best remedy.

**ASTERS, MARIGOLDS, AND PHLOX DRUMMONDI** are some of the most valuable annuals. These may be sown now in boxes of sandy soil, and placed in a moderate heat. Sow very thinly to avoid the danger of the seedlings damping off. I advise two sowings of *Stocks* and *Asters*; now, and again in April. Although artificial heat is necessary for the germination of these seeds, it is most important to avoid excessive heat.

G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**DENDROBIUMS.**—Small plants of the deciduous section of *Dendrobiums*, such as *D. Sibiyl*, *D. splendidissimum* varieties, *D. Ainsworthii*, *D. Harold*, *D. Juno*, *D. melanoticus*, and others which were obtained from cuttings last season, are, in most cases, sending up new growths, and should be shifted on; 3-inch pots will be a suitable size in which to grow them this season. The pot should be filled to one-quarter of its depth with crocks, and they should be potted moderately firm, but by no means hard, in the following mixture: Two parts chopped sphagnum moss to one part good fibrous peat and partially-decayed Oak leaf-soil, with some finely-broken crock and coarse silver sand. The whole should be mixed up well together, and the plants surfaced with chopped sphagnum. In order to maintain a succession it is necessary to propagate some of each sort every year, and the present is a good time to do so. As the specimen plants pass out of flower they will be benefited by judicious pruning—that is to say, any shrivelled or old useless pseudo-bulb that is likely to retard the progress of the young growth should be cut away. The plump unflowered portions of these old pseudo-bulbs are very suitable for providing the cuttings. A satisfactory method is to cut these into pieces just above the nodes, and insert a dozen or more pieces in pans filled with chopped sphagnum moss and coarse silver sand with the eye uppermost. They should then be placed in a hot, moist frame or a moist corner in the stove, shaded from strong sunshine, and syringed on bright days. When the young growths begin to root, they should be potted singly into small pots in a mixture of two parts chopped sphagnum moss to one part fibrous peat, intermixed freely with coarse silver sand. Some plants are apt to produce top growths, in which case they should be cut off carefully and potted as advised above. These growths often develop into a bulb about 6 inches long by the end of the season. All this section of *Dendrobiums* require a hot, moist atmosphere during the growing season. A light position in the stove or East Indian house suits them well. For a few weeks after potting water with care, but when the roots from the young growths have taken to the new compost, give water freely whenever the compost is approaching a dryish condition.

**HABENARIA CARNEA** and **H. MILITARIS** are now producing new growth from the crown of the tubers which lay dormant from the autumn to the present time. These tubers require to be examined occasionally during the resting season to see that they do not get too dry and shrivelled up. Now growth has begun, they should be turned out and repotted. Place about three tubers in a 4½-inch pot crooked to about one-quarter of its depth, over which place a little



rough loam, and pot with a mixture of equal parts fibrous loam and peat, and add a little leaf-soil. The whole should be freely intermixed with finely-broken crock and coarse silver sand to ensure good drainage. They should be potted moderately firm, and the young growths should be level with the surface. Give them a light position in the warm house, and water carefully for a few weeks, but when they are growing freely they require a copious supply of water. On bright days spray overhead *Odontoglossums*, *Cattleyas*, *Dendrobiums*, *Lælias*, &c., lightly, so that the water will not lodge in the growths.

W. H. PAGE.

*Chardwar, Bourton-on-the-Water, Gloucester.*

### FRUIT GARDEN.

**NUTS.**—To obtain good crops of Nuts and Filberts the trees should be thinned every year, removing crowded shoots, so that light and air may reach all parts of the trees. The pruning is best left until the end of March; then many of the branches that bear male catkins only can be removed. The female blossoms will also have become more prominent, and any barren branches may be cut out or shortened back.

**BRAMBLES AND AMERICAN BLACKBERRIES.**—The cultivation generally recommended for Raspberries is mostly suitable for these; a stout trellis or espalier about 8 feet high forms a very good means of training them. Ample space must be allowed in every direction by thinning out all the weaker shoots and removing old fruit-bearing wood, tying in the young strong growths their full length. The varieties known as Parsley-leaved and Wilson Junior are prolific bearers, the first-named being, perhaps, the hardier of the two. In all ordinary seasons an ample crop is assured, even in the colder districts of Scotland.

**THE LOGANBERRY**, an American hybrid, is also worthy of a place in every garden. It ripens earlier than the Bramble, and bears attractive fruits which make an excellent preserve. Its treatment is the same as recommended for Brambles. They all require a liberal application of manure, either in the form of a mulch of good farmyard manure or a reliable chemical fertiliser at the present time, supplemented during the growing season with occasional doses of liquid manure. Propagation is easily effected by means of division of the roots and by layering.

**RASPBERRIES.**—Young plantations of these formed during the present season should have their canes cut back to about 9 inches from the ground, to induce the production of strong canes during the summer that will ensure a good crop of fruit the second year after planting.

**THE PEACH WALL.**—The buds are now swelling fast. Assuming that sufficient pruning and dressing with an insecticide have been previously carried out, the trees may now be secured to the wall by nailing (or tying, if the walls are furnished with wires), beginning by securing first the main branches and distributing them evenly over the wall. Each main branch should radiate regularly from the central point and be kept in a straight line; afterwards train in the younger shoots. In fastening them, no more shreds or ties than are absolutely necessary should be used.

Place a pad of cloth, rubber, or leather between the branch and the wall, or wire where there is likely to be undue pressure. Some method of protecting the trees while in bloom is necessary. Boards of from 9 inches to 12 inches broad may be fixed to brackets under the coping of the wall; poles of an adequate length let slightly into the ground at a distance of 4 feet from the base of the wall, and fixed at the top to the edge of the coping-boards, can be used to keep the protecting material from coming in contact with the trees.

The most effective means of protection is undoubtedly a scrim or tiffany shading fixed on rollers in the same manner as is usually seen for

shading plant houses. The blinds should not be used until the flower-buds have begun to unfold; then they should be drawn down every night unless the weather is mild. When a sharp frost has occurred during the night, the trees should not be uncovered till the sun has warmed the air.

THOMAS WILSON.

*Glamis Castle Gardens, Glamis, N.B.*

### KITCHEN GARDEN.

**ONIONS.**—Autumn-sown Onions will now require attention for transplanting. The ground should be prepared beforehand with a liberal dressing of manure and well trenched in. Choose a fine day and lightly fork in a dressing of soot five parts, salt three parts, and fine bone-meal two parts; in forking do not go so deep as to bring any manure to the surface. When forked tread firmly all over, and apply a wooden rake to make the surface even. The Onions for transplanting should either be carefully drawn out with the hand, or lifted with a handfork, which is the better plan, as the roots then are not damaged so much. In lifting, arrange so as to leave the remainder in the drill evenly, and thick enough for a crop. Plant the Onions with a trowel in rows 15 inches apart and 10 inches in the row; do not plant them deep, just enough to keep them firm in the ground. As each row is planted rake over the ground to remove any footmarks.

**BROAD BEANS.**—Beans that have been sown in pots and properly hardened off should be planted without delay. Choose a well-prepared piece of ground in a warm quarter. In planting carefully disentangle a few of the roots, and plant firmly in rows about 3 feet apart. Protection from rough winds, which may be necessary at first, can be provided by Hazel or lightly-thatched hurdles, and materials for protection from frost should be at hand, for though Beans are fairly hardy, a sharp frost will give a serious check. Make successional sowings of Long Pod and Broad Windsor Beans, inserting the seeds in double rows 5 inches apart each way and 4 feet between each double row.

**POTATOES.**—Second early and mid-season Potatoes can now be planted. There are so many varieties that it is unnecessary to enumerate them all. Varieties suitable to the locality should be selected. After the Ashleafs I find Early Puritan an excellent variety in this soil, following on with Windsor Castle; but Duke of York and Beauty of Hebron are good reliable varieties. The distance between the rows should be decided by the variety planted, some having a much bigger haulm than others; but, generally speaking, 2 feet 6 inches is a suitable distance for nearly all second early varieties. Draw the soil up to any Potato stems appearing through the soil, just enough to cover them as protection from frost.

**TOMATOES.**—If Tomatoes are required for planting out of doors, a sowing should be made at once. Sow the seeds thinly in clean, well-drained pots or pans, using a mixture of loam, leaf-mould, and old Mushroom-bed manure. Do not make the soil too firm in the pots, cover the seeds lightly with fine soil, and place in a warm pit where there is a little bottom-heat. Frogmore Selected, though a tall grower, does well outside. So also do Sutton's Open-air and Up-to-Date.

**GENERAL REMARKS.**—Carrots in pits may be left fairly thick. Turnips should be thinned to about 3 inches. On fine days lightly fork over ground intended for seeds. Dig or trench the ground as it becomes vacant from Broccoli. Stir the soil well between Lettuces that have stood the winter out of doors. A dressing of soot and wood ashes hoed in is beneficial. Seakale thongs prepared for planting should be examined, and if not sufficiently "callused," remove to a warmer place than a south wall; for instance, in a sunny unheated pit.

J. JACQUES.

*Bryanston Gardens, Blandford.*

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**SWEET PEAS IN TUBS (Tapah).**—The article in question referred to the use of the tall-growing Sweet Peas, not the dwarf ones. We have not tried the latter, but the former do splendidly when grown in this way. The tubs we use are about 14 inches deep and about 10 inches in diameter at the mouth. Smaller tubs than these would not be so satisfactory, because they would not hold sufficient soil to produce good strong-flowering plants. Provided the soil is moist at the time of sowing the seeds, no water will be needed until the seedlings show through the soil. If, as we presume, your tubs would be out of doors, the soil would not need watering by hand for weeks, unless the weather was exceptionally dry.

**PLANTING PARTHERS (W. P. D.).**—Your flower-beds only 2 feet wide give little scope for planting for the summer, and only quite dwarf things can be used. In the centre of each of the side beds put two *Grevillea robusta*, two *Eulalia japonica*, two *Eulalia japonica* sebrina, and two *Fuchsias* of the variety *Charming*. All these plants should be from 20 inches to 24 inches in height, and would pleasantly break the formality of a quantity of low-growing plants. Two small pyramid *Heliotropes* might be put into one of the centre beds, and two upright *Plumbago capensis* into the other. Both these beds should be carpeted with blue *Lobelia* of a compact form, and edged with dwarf, well-pinned Sweet *Alyssum*. The other beds might be planted with in one case a rose-coloured, and the corresponding one with a plum-coloured, close-growing *Potunia*, the corresponding pair with well pegged down carmine and pink *Verbenas*. If annuals from seed were preferred, sow Sweet *Alyssum*, white; *Saponaria*, pink; *Nemophila*, blue; and *Bartonia aurea*, yellow.

**GRAFTING CLEMATIS (Viola).**—*Clematis Jackmanii*, and, in fact, all the various garden varieties of *Clematis*, are generally propagated by grafting the young shoots upon pieces of the roots of *Clematis Vitalba* or *C. Viticella*. Towards the end of February plants already in pots are taken into a greenhouse, when they at once start into growth, and as soon as the new shoots are firm enough grafting can be begun. Each shoot will form more than one scion, as the two opposite leaves and the piece of stem below are quite sufficient for one graft. The string-like fleshy roots are used for stocks, each bit that is sufficiently stout to take the graft being available. The lower portion of the scion must be fashioned like a wedge with a sharp knife, and the stock split for its insertion. The scion is then tied securely in its place with coarse darning cotton. Each must be potted singly into a small pot at such a depth that the point of union is just covered with the soil. The long string-like root is twisted around the pot till it is at the required

depth. The pots are then plunged into a propagating case with bottom-heat. Take care to shade from sunshine, and give sufficient air to prevent the young leaves decaying, but not enough to cause them to flag. As soon as the shoots begin to grow more air must be gradually given. This *Clematis* may be increased by layering.

**TWELVE AUTUMN-FLOWERING CHRYSANTHEMUMS FOR OUTDOOR BORDER (A. M. B.).**—In the twelve varieties mentioned in this reply, we have included the best we know for your purpose. None of them has what may be termed "large" flowers. They embrace the better Japanese sorts, with two or three charming Pompons and a beautiful single variety. The plants are easily grown, so that given good soil and an open position, where starchy young plants can be planted in the early days of May next, you should succeed without a doubt. Japanese sorts are: Nina Blick, reddish terra-cotta; Polly, bronze-yellow; Horace Martin, yellow; Goacher's Crimson, rich deep crimson; Rosil, bronze-terra-cotta; Improved Massé, mauve pink; Perle Rose, pink; Crimson Massé, bronze-chestnut; and Ralph Curtis, creamy white, sometimes tinted rose. Pompon sorts are: Veuve Cliquot, reddish bronze, and Mme. Edouard Lefort, red and yellow. A grand large-flowered single is Mrs. Charles H. Curtis, of a rich crimson colour. The foregoing is a selection of very beautiful varieties.

**DOUBLE PRIMULA (Groomer).**—A very difficult matter to advise on, as the whole of the treatment detailed by you seems so conducive to the welfare of this Primula. A minimum temperature of 45°, particularly if the plants are stood on an open bench which allows of a free circulation, should not cause the mischief. We are inclined to consider the pots unduly large, and should not advise you to give them such an extensive shift at what must be quite the end of the season. Try wintering them in 5-inch and 6-inch pots and we think a good deal of your trouble will disappear.

**IVY AS A BORDERING (Violet).**—Flower-beds may be bordered with Ivy by simply getting good long plants and pegging them down in the position they are to occupy. The Irish Ivy quickly makes an effective edging. For a narrow edging this method is decidedly superior to banking up the ground, but where there is a slope of considerable extent to be covered, the better way is to plant good vigorous and well-rooted plants at the bottom, and peg the shoots upwards till the space is covered. Ivies are in many nurseries kept in pots, so that they can be moved at any time; still, we should advise you to obtain them now. Should the summer prove to be a dry one, care must be taken that the newly-planted Ivies do not suffer from want of water.

## THE GREENHOUSE.

**AZALEAS (K. K. T.).**—The best time to pot Indian Azaleas is after flowering is over or before new growth is made. Firm potting and thorough drainage are very important. The best compost is half peat, the other half made up of fibrous loam, leaf-soil, and sand in equal parts. From October to June the plants are kept in the greenhouse, and during the other months are placed out of doors or in a cold frame. After potting keep the house closed for a few days and syringe the plants freely. They must be encouraged to make good growth by syringing and by closing the house early, so as to create a warm and moist atmosphere. As growth nears completion give more air and syringe less. Gradually harden off until by the end of June the plants may be put in a cold frame or out of doors. In October take in the greenhouse for flowering.

**KALANCHOE FLAMMEA (Telbury).**—This is not at all a difficult plant to cultivate, providing a few points are strictly observed. It may be readily raised from seed sown in February; the seedlings will flower in the spring of the following year. The best mode of increase is, however, by means of cuttings, as plants obtained in this way flower in a dwarfer state than seedlings. Cuttings may be taken during the spring and summer months, the best way being to put each cutting singly in a small pot. A suitable compost is equal parts of loam, leaf-mould, and silver sand. From their succulent nature they must not be kept close, as many cuttings are, but succeed best on a light shelf, slightly shaded. While

enough water should be given to keep the soil fairly moist, an excess must be guarded against. When well rooted they may be shifted into pots 4½ inches or 5 inches in diameter; soil as before. When rooted *Kalanchoë*s should not, except when they are in flower, be shaded at all. A warm greenhouse suits them best, of a minimum winter temperature of 50°. In summer no artificial heat will be required. During the winter the plants must be kept on the dry side. *Kalanchoë flammea* blooms, as a rule, in late spring and the first half of the summer.

**AFRICAN LILY (M. Russell Cotes).**—The term Lily is applied to so many different plants, requiring, of course, different culture, that the name Lily from Cape Town conveys really no significance. Among natives of that district we have the Arum Lily (*Richardia athiopica*), Scarborough Lily (*Vallota purpurea*), and the African Lily (*Agapanthus umbellatus*), while the white Trumpet Lily (*Lilium longiflorum*) is cultivated in many parts of South Africa. If you could send a leaf of your plant we could then in all probability identify it and give instructions for its culture.

## ROSE GARDEN.

**TRANSPLANTING BUDDED BRIARS (A. A.).**—You do not say whether the budded Briars you desire to transplant are standards or dwarfs. As the season is now advanced, we should advise you to allow the plants to remain where they are, transplanting the Rose plants next autumn. It is always rather risky to transplant budded stocks, and when the work is done it should be taken in hand much earlier than March. Of course if you still desire to remove them from their present quarters we do not say you will lose them, only the growth will be checked. Encourage good growth by cultivating the soil round about the plants during this season. Give a dressing of some good manure at once, and lightly fork this beneath the soil. Keep the ground well hoed, and as the buds develop into plants they should be staked. No doubt you have out back the Briars by this time. All the growth of seedling Briar or Briar cuttings above the inserted bud should be cut off with a pair of secateurs. In the case of standard Briars, the budded side shoots should be cut back to within 2 inches or 3 inches of where the buds are inserted, the portion retained being removed close up to the bud during June.

**COLOURS OF ROSES (J. W. T.).**—Victor Hugo (maroon scarlet), Louis van Houtte (maroon crimson), Prince Camille de Rohan (maroon), and Prosper Langier (scarlet).

**SPRAYING CLIMBING ROSES (A. Goodwin, Warley).**—The idea of syringing or spraying climbing Roses during February and March is by no means a bad one. Choose a day when there is but little wind and no likelihood of frost. We should ourselves prefer to spray in the morning, so that the plants would be quite dry by night. Gishurst Compound is about as useful an insecticide for your purpose as we could name, because there is no trouble in preparing it. Some rosarians have considerable faith in paraffin, but it requires using with discretion. A very good wash is made by boiling half a pound of soft soap in half a gallon of soft water, then add half a pint of paraffin; stir vigorously, and dilute with 7½ gallons of rain-water to which has been added sulphide of potassium in the proportion of 3oz. to one gallon. We have never found this wash too strong for Roses of the Crimson Rambler and Dorothy Perkins types, but it should be remembered that the buds and young foliage of such Roses are much harder than those of some of the climbing Teas and Noisettes.

## KITCHEN GARDEN.

**SPROUTING SEED POTATOES (Potato).**—It is not at all essential in sprouting Potatoes for planting that they be set up for such purpose in boxes. The primary reason why so advised is convenience, as boxes are easily handled, and if of proper dimensions may be used as baskets from which to plant the tubers direct, thus saving the shoots from danger of breakage. But assuming that the position has ample light, as that is of the first importance in securing stout, sturdy shoots on the tubers, it matters not whether the tubers be spread out on shelves or on a soil bed or on ashes or Coconut fibre refuse, or even on wattle hurdles. If the tubers whilst fully exposed to light are kept dry, the sprouts come to an inch or so in length, and thus

remain till planted. If soil, sand, ashes, or any other material is placed about the tubers and kept damp, the shoots soon root into it, and rapid growth of root and shoot quickly follows.

**USES OF POULTRY MANURE (Enquirer).**—Your question is one we frequently have to answer. By all means mix poultry manure, as fast as cleared from the runs, with double its bulk of dry soil, that is so far absorbent that it retains the full nutritive properties of the manure. By keeping the whole in a heap for a few months not only is there no waste but there is sweetening of the manure by the loss or wide absorption of its acidity such as would be manifest were the manure used direct to the soil. Where wood ashes can be obtained these may be mixed with the manure in the proportion of one-fourth, and as the accumulating heap of matter is turned a liberal dusting of soot may well be added. If the heap be kept cone-shaped it does not suffer under rain. When so prepared this mixture may be applied to any crops with good effect, but especially to fruits and vegetables.

**CABBAGE LETTUCE (M. R.).**—For the winter and coming in early for use in the spring the Cabbage Lettuce can be highly recommended. During April and May excellent heads of much crispness are obtained from autumn sowings upon warm south borders.

## MISCELLANEOUS.

**BOOKS (C. Van der Yeght).**—Books likely to suit your purpose are: "Book of Choice Ferns," by G. Schneider, £2 2s.; "Ferns for Amateurs," by G. Schneider, 3s. 10d.; "Ferns and Fern Culture," by J. Birkenhead, 1s. 3d.; "Orchids, their Culture and Management," by W. Watson, £1 5s. 6d.; "The Book of Orchids," by W. H. White, gardener to Sir Trevor Lawrence, 2s. 9d. We do not know of any work dealing especially with Palms, but as an entire encyclopedia of plants in general we can recommend "Nicholson's Dictionary of Gardening," 5 vols., £4 4s.

**FLOWER SHADES (Constant Reader).**—Shades are commonly made with wire frames, the lower ring of wire 6 inches in diameter, and an upper one, 2 inches in diameter, fixed 3 inches above the other by other wires. These wires form caps when covered with oiled calico or thin cardboard, cut to the required shape. The caps are then fixed on sticks, and these, having their lower points forced in the ground, just shade individual flowers and protect them from rains also. Dahlia-growers are as a rule content to tie caps of loose muslin over their flowers to furnish shade, but these might not do for Roses or Carnations. The caps should be made stout and be firmly fixed by means of wire on the frames which support them. Such shades can be purchased at moderate prices.

**NAMES OF FRUIT (Violet).**—1, Dr. Harvey; 2, Bee Pool; 3, Pear Bellissime d'Hiver.

**NAMES OF PLANTS (F. A. S.).**—1, *Crocus vernus* (?); 2, *C. tommasinianus* (?). Bulbs should always be sent with *Crocus* flowers for name, as without it is impossible to be certain in closely allied species. —*Somerset*.—1, *Polygala myrtifolia*; 2, *Senecio cineraria*; 3, *Santolina Chamaecyparissus*; 4, *Pteris serrulata* var. *cristata*; 5, *Asplenium Trichomanes*; 6, *Eucynurus japonicus*.

## LEGAL POINTS.

**WILD BIRDS PROTECTION ACTS 1880, 1881, 1888, 1894, 1896, 1902, and 1904 (A. H. A., Cornwall).**—It is unlawful to kill or take any wild bird between March 1 and August 1, but this provision does not apply to the owner or occupier of any land, or to any person authorised by him, killing or taking on such land any wild bird not included in the schedule given below. It is also unlawful for any person to expose or offer for sale, or to have in his possession, after March 15, any wild bird recently killed or taken; but a person cannot be convicted if the killing of the bird was lawful, or if it was killed in some place to which the Act does not extend. Penalty for any of the above-mentioned offences: If bird included in schedule, £1 per bird; if not included, reprimand, with costs, for the first offence, every subsequent offence, 5s. per bird, and costs. The Court may order the trap, net, or snare, and the wild bird to be forfeited. A person found offending who refuses to give his name and address is liable to an additional penalty not exceeding 10s. The name and address may be demanded by any person. A Secretary of State may, on the representation of the County Council, extend or vary the close

time, or extend the schedule to other species of wild birds, and may also prohibit the taking or destroying of wild birds' eggs. Penalty for taking or destroying eggs contrary to such an order, not exceeding £1 for each egg. The Court may order the egg to be forfeited. Three weeks preceding the commencement of the period of the year during which an order of the Secretary of State operates the council of the county to which such order relates must give public notice thereof. It is unlawful to place upon any pole, tree, or cairn of stones or earth any spring trap, gin, or other similar instrument calculated to injure any wild bird coming into contact therewith. Penalty, first offence, not exceeding 40s.; any subsequent offence, not exceeding £5. It is unlawful to kill, wound, take or offer for sale any sand-grouse killed or taken in the United Kingdom. Penalty, not exceeding £1 and costs. Schedule of specially protected birds: American quail, auk, avocet, bee-eater, bittern, boxie, colin, Cornish chough, coulteneb, cuckoo, curlew, diver, dotterel, dun-bird, dunlin, eider duck, fern owl, fulmar, gannet, goat-sucker, godwit, goldfinch, grebe, greenshank, guillemot, gull (except black-backed gull), hoopoe, kingfisher, kittiwake, lapwing, lark, loon, mallard, marrot, merganser, murre, night-hawk, night-jar, nightingale, oriole, owl, ox bird, oyster catcher, pewit, petrel, phalarope, plover, plovers-page, pochard, puffin, purre, razorbill, redshank, reeve or ruff, roller, sanderling, sandpiper, scout, sealark, seamew, sea parrot, sea swallow, shear-water, sheldrake, shoveller, skua, smew, snipe, solangosee, spoonbill, stint, stone curlew, stone-hatch, summer snipe, tarrock, teal, term, thick-knee, tyesty, whaup, whimbrel, widgeon, wild duck, willock, woodcock, and woodpecker. In so far as concerns the island of St. Kilda, the forked-tailed petrel and St. Kilda's wren are inserted, and the fulmar, gannet, guillemot, puffin, and razorbill are omitted.

**REMOVAL OF TREES AND SHRUBS BY TENANT (Shrub).**—The tenant of a semi-detached house is not entitled to remove trees and shrubs planted by him, but in most cases the landlord raises no objection unless the removal causes damage to the property. Many tenants "take the bull by the horns" and remove small trees and shrubs. The penalty is the value of the things removed, plus the damage (if any) caused by the removal. (See "Law for the Million," second edition, under "Fixtures.")

**TRESPASSING ANIMALS (W. K.).**—I am glad that you found our advice useful and that you won your action. It is always a pleasure to receive letters like yours.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY.

#### FLORAL COMMITTEE (MARCH 6).

**PRESENT:** Mr. W. Marshall (chairman), Messrs. H. B. May, C. T. Drury, James Hudson, R. W. Wallace, George Nicholson, E. Wilson Ker, J. Green, C. J. Salter, J. W. Barr, C. E. Fielder, R. Hooper Pearson, William Howe, G. Benthie, J. Jennings, H. J. Cutbush, W. Bain, Charles Jeffries, Charles Dixon, William Cuthbertson, H. J. Jones, Charles Pearson, Charles E. Shea, E. H. Jenkins, W. J. James, James Douglas, James Walker, George Paul, T. W. Turner, R. C. R. Nevill, and W. G. Baker.

The table of Cinerarias from Messrs. Sutton and Sons, Reading, gave an excellent idea of the perfection to which these plants have been brought. For bright and decisive colouring, compactness of growth, and form of flower those shown could hardly be surpassed. The blue and pink shades were very beautiful. These model plants were barely 12 inches high in the tallest examples, and made a grand display as nearly perfect as it is possible to be. Silver Flora medal.

A small group of forced shrubs from Messrs. W. Paul and Son, Waltham Cross, included the double white and double red Peaches, together with the double-flowered Almond, and others. Silver Banksian medal.

A splendid group of Cyclamen was shown by Mr. John May, St. Margaret's, Twickenham. The plants were perfect. One variety—Excellor—with glowing crimson velvet flowers, showed to excellent advantage. The whole group showed beyond doubt that the plants were grown by a master-hand. Silver-gilt Flora medal.

Mr. A. F. Dutton, Iver, Bucks, again brought a very beautiful exhibit of the American tree Carnations,

displaying them with his usual good taste and judgment. Christmas Eve and Flamingo were best among intense scarlet sorts, and such as Earlwarden, Crimson Enchantress, Mrs. Lawson, and others were all in good form. Some good white-flowered kinds were shown. Silver-gilt Banksian medal.

Messrs. Barr and Sons, Covent Garden, contributed boxes of Alpine and hardy plants that included Lenten Roses, Adonis amurensis, Crocus species, Snowdrops, many of the early Saxifragas, Silyrinchium grandiflorum, Hepaticas angulosa alba, together with early Squills, Chionodoxas, and others. A few vases of forced Narcissus were also shown. Silver Banksian medal.

The Guildford Hardy Plant Nursery staged a small but bright group of early Alpines, as Saxifraga apiculata, Erica carnea, Isopyrum thalictroides, Saxifraga oppositifolia alba, Iris reticulata, &c.

Messrs. J. Hill and Son, Edmonton, staged a fine group of ferns, noticeable among which were Polystichum triangulum laxum, very distinct in its long, far-reaching fronds; Pelaea intermedia, Platycorium grande, Gymnogramme schizophylla gloriosa, very elegant, and many more. Silver-gilt Banksian medal.

Messrs. J. Veltch and Sons, Limited, Chelsea, had a table of miscellaneous plants, among which the new Coleus, C. shirensis, was seen. Other things in groups included Chelanthus Kewensis, Streptocodon Jamesonii, Rhododendron Veltchianum (purest white), Primula Kewensis, and Eupatorium petiolare. Silver Banksian medal.

Mr. G. Mount, Canterbury, for the first time this year, brought some excellent cut Roses, chiefly Captain Hayward (crimson) and Mrs. J. Laing.

Messrs. H. Low and Co., Enfield, showed a small group of the American Tree Carnations in variety, with which were associated a newer type of English origin, and of which Coronation, a full cerise-pink, was well shown.

Messrs. William Bull and Sons, Chelsea, staged a small group of select Palms, Geomoma acaulis and Phoenix Robellini being noted among the more distinct kinds.

Mr. L. R. Russell, Richmond, staged on the large concert platform a fine lot of forced Azaleas, Lilacs, Laburnum, Forsythia suspensa, Clematis, Deutzia, and others, the plants making a fine display. Silver-gilt Banksian medal.

Messrs. G. A. Clark, Limited, Dover, contributed a rock-work arrangement planted with alpines, together with large masses of coloured Primroses, Erica carnea, Iris reticulata, and suitable shrubs.

Some well-grown Star Cinerarias were shown by Messrs. Cannell and Sons, Swanley, the plants being represented in a great variety of colours. The same firm also exhibited Zonal Pelargoniums in many beautiful shades. Silver Banksian medal.

Messrs. R. Veltch and Son, Exeter, showed Erica carnea, Saxifraga Elizabethae, and Prunus Mume fl.-pl., all from the open ground.

Lachenalia glauca, with plants of Hippeastrum in three colours, came from Lord Rothschild, Tring Park, Tring.

The Misses Hopkins, Mere, Cheshire, showed Primroses, Anemones, Erica carnea, Polyanthes, early Saxifragas, Primula denticulata, Squills, and many other early flowers.

The Cinerarias from Mr. H. B. May exhibited a choice strain of these plants in many shades of colour, those of blue and white making a good show. The pink and deep blue shades were very beautiful, and a tone approaching to crushed strawberry appeared the most distinct. Groups of Clematises were arranged around a groundwork of Ferns. The new hybrid Cape Pelargonium Florida was well shown. Silver Flora medal.

Messrs. T. S. Ware, Limited, Feltham, showed a mixed group of forced Narcissus, Primula verticillata, the early Saxifragas, Daphnes, Iris stylosa in variety, Primula obconica, Tree Carnations, &c. Bronze Flora medal.

Hippeastrum, consisting of some fine crimson shades, named Scarlet Beauty, Royal Scarlet, Crimson Prince and Crimson Maroon, very fine seedlings, were shown by A. de Rothschild, Esq., Hailton Gardens, Tring. (Mr. R. C. Sanders, gardener.) Silver-gilt Flora medal.

Messrs. J. Cheal and Sons, Crawley, showed hardy plants in boxes, as Saxifragas, Primulas, and other early flowers, with shrubs, &c.

Mr. Robert Sydenham exhibited bulbs grown in moss fibre, as Daffodils, Lily of the Valley, &c.

Messrs. George Jackman and Son, Woking, contributed many early-flowering plants, as Hepaticas, the early Cyclamen, Chionodoxa gigantea, Adonis amurensis, fl.-pl., very fine, Anemones, Iris sindjarensis, and a lovely lot of Shortia galacifolia. Silver Banksian medal.

Messrs. J. Peed and Sons again showed alpines in pots, with Lachenalias, and a few out blooms of Clematis.

A very effective grouping of Hyacinths in colours on the floor was carried out by Messrs. R. G. and G. Cuthbert, The Nurseries, Southgate. The varieties were of the ordinary bedding type of Hyacinth, and arranged in a set design in pink, blue, yellow, white, red, and other shades. Silver-gilt Flora medal.

Messrs. B. S. Williams and Son, Upper Holloway, staged Lilacs, Heaths, Funkias, forced Rhododendrons, and the like among rocks.

Messrs. William Cutbush and Sons, Highgate, staged a magnificent group of forced plants and shrubs, such as Azaleas, Pyrus Malus Schiedackeri (very charming in bud and blossom), some grand masses of Magnolias, together with Guelder Roses, Cerasus J. H. Veltch, Wistarias, and other plants. This was a splendid exhibit, demonstrating the value of forced shrubs at this time of year. Gold medal.

Mr. G. Reuthe, Keston, Kent, had a beautiful assortment of alpines and rock shrubs. The collection was very rich in Saxifragas, of which probably not less than a score of distinct forms were seen. Hepaticas and Crocuses were also charming. Irises and many other plants were noted. Silver Flora medal.

Mr. Maurice Prichard, Christchurch, Hants, had a small group of early alpines, in which Saxifraga Elizabethae was very charming. Irises, Anemones, Saxifraga oppositifolia major, the early Primulas, together with Hepaticas, were all beautiful.

Messrs. Thomas Cripps and Sons, Tunbridge Wells, showed a good collection of Acares in pots, the great variety and the elegant foliage commanding attention at once. The group was of a most representative character, and the plants were in the pink of perfection. Silver-gilt Banksian medal.

In one corner of the hall Messrs. William Cutbush and Sons, Highgate, had arranged a small rock garden, distinctly ornamental in character, and reflecting the highest credit on those responsible for the work. Masses of Iris reticulata, of white and purple Saxifragas, white Scarch Hyacinths, Snowdrops, Iris sindjarensis, Daphnes, hardy Heaths, a lovely grouping of Shortia and Primula cashimiana, and many other things contributed to a display as beautiful as it was natural and well executed.

#### NEW PLANTS.

**Carnation Elliott's Queen.**—A large-flowered, long-stemmed variety; colour, rose pink. It has a good calyx. From Mr. H. Elliott, Havercks, Sussex. Award of merit.

**Carnation Nelson Fisher.**—An American variety with deep cerise-coloured flowers, a good and strong grower. From Mr. A. F. Dutton, Iver, Bucks. Award of merit.

**Freesia Tubergeni.**—A pretty and graceful flower, coloured lilac and white. The flowers are scented. In size and colour this is a great advance upon F. Armstrongii. It is the result of a cross between F. refracta alba and F. Armstrongii. From M. C. G. Van Tubergen, Haarlem. Award of merit.

**Polypodium phymatodes corymbosum.**—A very remarkable variety, the long, drooping fronds heavily crested as in some Pteris. A large plant of this would be most effective. From Mr. E. B. May, Edmonton. Award of merit.

**Davallia canariensis elegans.**—Probably one of the most elegant of this section of Davallia, the fronds so finely cut as to represent lacework. A very pleasing and well-marked variety. From Messrs. J. Hill and Son, Edmonton. Award of merit.

#### LIVERPOOL HORTICULTURAL ASSOCIATION.

THE members of the above society met in good force at the Common Hall, Liverpool, recently, Mr. W. Mercer presiding, when Mr. N. F. Barnes of Eaton Hall lectured on "Gardens, Ancient and Modern," with some illustrations. The lecturer commenced with descriptions of the gardens of Babylon, those of the Greeks which were copied by the Romans, who in their turn introduced gardening to ancient Britain. Subsequently the monks took up the subject of gardening, and many beautiful examples were created by them, and even during the long wars they continued their labours. The various styles of gardening are shown by examples that still remain, also by pictures, books, &c., in which gardens were surrounded by hedges or walls, with their fish ponds, lakes, formal terraces, and straight walks. A selection of Italian and Dutch gardens were illustrated, followed by those more familiar, including Hatfield and Holland House, with selections of some in France. Many of the most famous gardens in the country were referred to. The illustrations given by lime-light did much to interest and instruct, the lecture proving one of the best given under the auspices of the society. At the conclusion of the lecture some interesting data were furnished by Messrs. E. F. Hazelton (Knowsley), E. Newstead, and E. Wilson Ker from personal knowledge and experience. A vote of thanks to Mr. Barnes for his excellent and valuable lecture was proposed by Mr. E. G. Waterman, seconded by Mr. T. Foster, supported by Mr. J. Stoney, and carried by applause. A similar compliment was paid to the chairman.

#### TRADE NOTES.

##### VALLIS' BEETLECURT.

THIS is an infallible exterminator of beetles, cockroaches, ants, woodlice, crickets, and other pests that infest glass-houses, pits, and frames from now onwards. When the temperature of the house increases at this time of year these pests make their appearance, and if not exterminated soon prove a great nuisance. Vallis' Beetlecurt is harmless to domestic animals and human beings, but destructive to these insects. The latter eagerly eat "Beetlecurt," and in a few hours they become dried up without leaving any disagreeable odour. Vallis' Beetlecurt may be bought retail everywhere. The proprietors are Vallis and Co., 12, Little Britain, E.C.

##### WITH'S GARDEN MANURE.

WITH'S PLANT FOOD, after several years' trial, has been abundantly proved to be one of the most remarkable and useful discoveries of modern times. With's Plant Food, which will increase the crop, save labour, and offer economical facilities in use, must demand the earnest consideration of all practical gardeners and horticulturists, and commend itself to their notice. It has been used with perfect success for Cucumbers, Tomatoes, Melons, Marrows, Celery, flowering plants, fruit trees, Vines, &c., and is equally applicable for indoor and outdoor use. It is a valuable manure for Rose trees, Pelargoniums, Calceolarias, Azaleas, Cinerarias, &c. Full particulars of this and other garden fertilisers may be had from With's Chemical Manure Company, Hereford.

\* \* The Yearly Subscription to THE GARDEN is: *Inland* 6s. 6d.; *Foreign*, 8s. 9d.

# THE GARDEN.

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## THE "A B C" OF ROSE PRUNING.

**A**S the time of year has arrived when all interested in Rose culture—and who that has a garden nowadays is not so interested—are beginning to turn their thoughts in the direction of pruning, I venture to offer a few practical directions for the guidance of those who may be pruning their Roses for the first time, or who have hitherto had but little experience in such matters. For I well know how many lovers of their gardens are apt to regard this question of pruning either as a most difficult, complicated, and mysterious operation, or else as so easy as to require no previous instruction at all.

It would, of course, be impossible for me in the space at my disposal to attempt to teach the art of pruning in the same complete and admirable way as it is set forth in the "Handbook on Pruning Roses," recently issued by the National Rose Society, a little book which I would strongly advise Rose pruners of all classes at once to obtain. My present purpose is much more modest, and that is to supply a few simple hints, which, if faithfully followed, will enable any reader of *THE GARDEN* to prune his or her Roses better than they are pruned in more than half the gardens in this Rose-loving country of ours.

In the first place, I should like to say that good pruning is not so important as good planting. Provided Roses have been properly planted in well-prepared soil, they will afterwards stand, without serious injury, a great deal of ill-usage from the most inexperienced pruner that ever handled a knife, whereas no amount of skilful pruning will ever impart to badly-planted Roses in poor soil that vigour and vitality which they missed through being improperly treated at the commencement of their career. In order to give the beginner greater confidence in the recuperative power of well-planted Roses than he usually possesses, and make him less afraid of damaging his plants by following even the very moderate system of pruning I am about to advocate, I may state that, were a bed of such Roses mown down level with the ground in the spring, a very large majority of the plants would produce a good crop of beautiful blooms during the following summer and autumn. In fact, I venture to say the

results would be superior to those which would follow the efforts of the novice if left entirely to his own devices to deal with a similar bed.

The best instrument to use is a pruning-knife with a keen edge. For this purpose it is advisable to keep a hone handy, so that the knife may be sharpened as soon as the edge begins to be at all dulled; otherwise the cuts made with it will not be as clean as before, while the bark will be in danger of being torn. With a really sharp knife the work is not only more easily, but also better and more quickly done, which, when a large number of plants have to be dealt with, is a matter of no little importance. To guard the hands against those terrible thorns with which many varieties are so thickly armed, garden gloves should be worn which are sufficiently easy-fitting to allow of the handle of the knife being readily grasped. In order to complete the outfit all that will be needed is some form of kneeling-pad. This will add greatly to the comfort of the pruner when dealing with the requirements of the dwarf plants. My own is a very primitive affair, consisting of a piece of deal about half-an-inch thick covered with sacking, the space between the sacking and the board being stuffed with straw.

Being thus equipped, the first consideration will be as to whether the plants about to be pruned are required to produce a small number of extra large flowers, or a larger number of comparatively small ones. If the former, the pruner, should he wish to become a successful exhibitor, will have to harden his heart and ruthlessly cut down to within about 6 inches of the ground all the best shoots, after having previously removed all the old, sappy, and twiggy growths. To treat fine-looking Rose plants after this fashion always seems to the neophyte little short of destroying them altogether; whereas, on the contrary, the result will be that such plants will, as the summer comes on, throw up shoots of greater vigour than if they had been less severely decapitated. In order to give some idea as to the bare appearance of an exhibitor's garden directly after the Roses are pruned, I may state that more than once I have been asked by visitors, when looking at my Rose beds at that season, why I grow so much Asparagus.

If, on the other hand, the plants be intended for the decoration of the garden or the

production of a large number of cut flowers—and it is for the benefit of those who have that wish, and not for exhibitors, that I am now writing—the treatment need not be anything like as severe.

For our present purpose Roses may be divided into four classes—1, dwarfs and standards; 2, climbers; 3, newly-planted Roses; 4, the Austrian Briars and Scotch Roses. First, as to the dwarf, or bush Roses as they are sometimes called. It will be well to commence operations by removing all the dead wood, next the soft and sappy shoots (those which when cut are found to consist almost entirely of pith), then most of the small twiggy growths, and, lastly, some of the better shoots where they have become too crowded. This process is called thinning out the plants, and nearly every one of them will require to have some branches removed. In doing this each shoot should be cut clean out either to the base of the plant or to where it springs from an older shoot, as the case may be. If the thinning be properly done, none but the sound, strong, and well ripened (firm woody shoots) will afterwards remain, together with a few older and less vigorous ones. The idea kept in view should be to have a moderate number of shoots as far as possible equally distributed over the plant, and nowhere crowded together, and to leave the centre rather more open than the sides. If the plant under treatment be an old and vigorous one which has not been properly pruned in the past, a number of shoots may have to be cut out in order to bring it into proper form and to allow of the admission of light and air to the middle of it. On the other hand, a young plant of small growth may require the removal of scarcely any shoots at all. These two types may be regarded as representing the two extremes of the various kinds of Roses that will have to be treated. I have dwelt rather fully upon this thinning out process, as it is the one most often neglected in ordinary gardens, and yet it is far more important than shortening the shoots which are allowed to remain, which may be styled the pruning proper.

In order to make this pruning proper as simple as possible, I would advise that the shoots which remain on the plant, after all the useless and crowded growths have been cut clean away, be shortened back about



half their length, whether they come from the base of the plant or from another shoot. In doing this care should be taken to make each cut just above a dormant leaf-bud, a more forward bud, or a young leafy shoot, as may happen. Of course these examples are only different stages of the same thing. First we have the dormant bud; then, when that begins to grow, the more forward bud; after that young leaves appear, and ultimately a young shoot. In a season like the present, when the plants are in some cases covered with young leaves, it may seem undesirable to cut out so many shoots as has been here in some cases recommended, and to shorten back others, thus entailing the removal of still more leafy shoots. But it is really for the benefit of the plants they should be so treated.

If the previous instructions have been made sufficiently clear, there will be no difficulty in dealing with the standard Roses, as they virtually require the same treatment as the dwarf plants; that is to say, all useless and crowded shoots should be removed, and those which are allowed to remain cut back half their length.

Climbing Roses, on the other hand, require to be dealt with somewhat differently. The decayed wood should be taken out, while a few of the older shoots may be also removed to make room for the long and vigorous young growths, which should be tied in to fill the gaps thus made. Beyond this no further thinning out will in most cases be necessary. As to the pruning proper little, if any, will be required, except, perhaps, to shorten back here and there any straggling branches which may be in the way.

Roses planted during the previous autumn or winter, or in the early spring, also require special treatment. In this case the method that should be adopted is extremely simple. If there be any decayed shoots they should, of course, be removed, and all the rest cut down to within 6 inches of the ground. Newly-planted climbing Roses may be left a little longer, but even with these severe pruning will be found to answer best in the end. If desired one or two of the strongest shoots of these climbers may be left 2 feet long, but not more. The reason for such extreme measures is due to the fact that the plants have as yet obtained but imperfect foothold of the soil, so that the less they are given to do the first year the better for their future welfare.

All Roses usually grown in gardens may be pruned as above directed, except the Austrian Briars, such as Persian Yellow and Austrian Copper, and also the bushy little Scotch Roses, which are best left without any pruning at all.

As to the time when pruning should be done, for ordinary gardens I always recommend the end of March or beginning of April as being, all things considered, the best.

EDWARD MAWLEY, V.M.H.

#### FORTHCOMING EVENTS.

March 28.—Liverpool Horticultural Association's Show (two days).

April 3.—Royal Horticultural Society's Exhibition and Meeting; Cornwall Daffodil Show (two days); Brighton Spring Show (two days).

April 4.—Shrewsbury and Dublin (two days) Spring Shows; Sheffield and Lewes Horticultural Societies' Meetings.

April 10.—Devon Daffodil Show (two days).

April 11.—York Florists' Spring Show.

## THE EDITOR'S TABLE.

### BLUE PRIMROSES.

We are reminded of the time of Primroses by a gathering of flowers of the blue variety from Mr. W. A. Watts, Bronwylla, St. Asaph. The colour is very deep and rich, but most noteworthy are the fine size and shape of the flowers. Mr. Watts has evidently a good variety, though we cannot describe the colour as blue. A true blue Primrose has still to be raised.

### STAR PRIMULAS.

From The Firs, Worting, Basingstoke, Messrs. C. Brooks and Co. have sent a selection of varieties of the Star Primula (*P. stellata*). A considerable variety of colouring is represented. Among them are Blue Star Improved, Salmon Queen, Yellow Star (yellow and white), White Star Improved, Crimson Gem, Crimson Star, and others. Messrs. Brooks write that they have "a new colour in Chinese Primulas; the variety is a sport from Crimson King, and its colouring reminds one of that of Fortune's Yellow Rose."

### WEBB'S CINERARIAS.

Messrs. Webb and Sons, Worsley, Stourbridge, have sent us blooms of their Superb strain of Cineraria. They are large and most richly coloured; the purples, blues, blue and white, and crimsons are very handsome flowers. Messrs. Webb's strain of Cinerarias is undoubtedly an excellent one.

### TWO-YEAR-OLD CYCLAMENS.

From Bryntirion Gardens, Berham, Wrexham, Mr. Frank Owen sends some unusually fine Cyclamen. The blooms are large, of good substance, and clear colouring, while the foliage is vigorous and handsome. Mr. Owen writes: "In THE GARDEN, of the 3rd inst., 'I was pleased to see that Mr. Cox agrees with growing Cyclamen the second year. I enclose a few blooms taken from our plants which have been grown for two years. We have plants with thirty to forty perfect flowers on each, and they were grown in the way indicated by Mr. Cox, with the exception that instead of being rested in a cold frame they were thoroughly baked on shelves in a greenhouse. I am sure readers cannot do better than flower their Cyclamen a second year. They will be rewarded with a good show of blooms.'"

## NOTES OF THE WEEK.

**Royal Horticultural Society's Scientific Committee.**—At a meeting on Tuesday last, the 20th inst., Mr. Charles C. Hurst gave a simple statement of the Mendelian Laws of Inheritance before the scientific committee of the Royal Horticultural Society. Mr. Hurst illustrated his remarks by means of specimens, and showed how the laws affect the practice of hybridisation. There was a good attendance to hear of the rapid strides recently made in the knowledge of one of the laws of inheritance, knowledge which bids fair to be not only of great scientific value, but also of considerable practical utility to all breeders of plants and animals.

**Experiments with Potatoes in Scotland.**—The Scottish Colleges of Agriculture are proceeding upon systematic lines with a valuable series of experiments with Potatoes, testing the difference between sprouted and non-sprouted Potatoes as regards the increase of crop, and comparing the qualities and quantities of the crops produced by different varieties. The results of the first are recorded in pamphlets issued by the Edinburgh and East of Scotland College and the North of Scotland College in Aberdeen. The results in both cases are decidedly in favour of the boxed Potatoes, the increase

being as much as from 10cwt. to more than 4½ tons per acre. The Edinburgh and East of Scotland College's experimental trials of thirteen varieties show that on the five farms The Factor, Pink Blossom, and Up-to-Date gave the best results of the main crop varieties in yield, but that Langworthy gave the best quality. King Edward VII. was the best cropper and the best disease-resister of the second earlies.

**Greenwich Park.**—At a recent meeting of the Ratepayers' Association a well-deserved compliment was paid to Mr. W. Marlow, the superintendent of Greenwich Park, a resolution being passed recording appreciation of his public service in regard to the beautifying of the park so loved by Londoners.

**Some forthcoming flower shows.** The exhibition of the Glamorgan Daffodil and Spring Flower Society will be held in the Gwyn Hall, Neath, on April 10. The hon. secretary is Miss Enid Williams, Miskin Manor, Pontyclun. The Croydon Horticultural Society will hold their thirty-ninth summer show in the grounds of Brickwood House, Addiscombe Road (by permission of Percy J. Reid, Esq.), on Wednesday, July 4. Mr. A. C. Roffey, St. Andrew's Villa, 55, Church Road, is secretary.

**Notes from Baden-Baden.**—*Corydalis densiflora* is now conspicuous among early spring-flowering plants. Each bulb produces a tuft of fresh green, slightly glaucous leaves and one or two dense spikes of a lilac-rose colour. It is extremely hardy, stands any change of weather, and always looks fresh and charming. Among *Chionodoxas* delightful colour varieties occur—pure white, rose, and deep blue—*amabilis* (white, with a shade of rose) being quite lovely. *Asperia* is a fine variety of *Iris reticulata*, colour very deep, and the flowers are the largest of this group.—MAX LEICHTLIN, Baden-Baden.

**"Irish Gardening."**—This is the title of a new monthly educational journal devoted to the advancement of horticulture in Ireland, and published at 13, Fleet Street, Dublin. For some time Ireland has been without a gardening paper of its own, so that this new journal ought to have a warm welcome. This it certainly deserves if one may form an opinion of its merits from the first number. The contents are varied, interesting, and practical. Mr. F. W. Moore writes upon the present condition of horticulture in Ireland, Professor James Wilson compares English and Irish types of Potatoes, Mr. Bowers contributes notes upon "How to Identify Apples," and Dr. O'Donel Browne has the care of the page devoted to Roses.

**Cardiff and County Horticultural Society.**—The annual flower show will be held in the Sophia Gardens, Cardiff, on Wednesday and Thursday, July 25 and 26, 1906. Full particulars may be had from the secretary, Mr. Harry Gillett, 66, Woodville Road, Cardiff.

**"The Horticultural Note Book."** This is the title of a very useful book by Mr. J. C. Newsham, head-master and manager of the Hampshire County Council Agricultural and Horticultural School. It is a manual of practical rules, data, and tables for students and gardeners. The mass of accurate information contained in the 400 pages, and the excellent diagrams interspersed throughout the text, make this book a most valuable work of ready reference, and particularly for young gardeners and students who cannot afford large and more expensive books. The items are so numerous that we can make no attempt to refer to them individually. There are chapters upon land measuring, soils, hedges, fruit culture, propagation, manures, flower culture, vegetable culture, trees and shrubs, &c. "The Horticultural Note Book" is one of the most useful gardening books we have seen. The lists of fruits, flowers, and vegetables, as well as the concise cultural directions, will be found most helpful. It is published by Crosby, Lockwood, and Son, 7, Stationers' Hall Court, E.C.

**Royal Botanic Society of London.**—Her Royal Highness Princess Alexander of Teck has kindly consented to open the Great Horticultural Exhibition, to take place in the gardens of the society on Wednesday, June 13.

**"The Daffodil Annual."**—I trust that the suggestion of a Daffodil annual will soon become an accomplished fact. The number of questions that I am asked from time to time concerning Daffodils show how much such a periodical is needed.—THOMAS BUNCOMBE, N. Devon.

**"Country in Town" Exhibition.**—The object of the exhibition proposed to be opened in the Whitechapel Art Gallery during the summer of 1906 is to show East Londoners what can be done to bring into the neighbourhood something of the beauty, freshness, and inspiration of Nature. The exhibition will contain: 1. Living Things; 2. Pictures and Models; 3. Materials and Appliances. Living things include plants which have been grown in London; plants which have been grown in London schools; plants, suggested by experts, which might be grown in London. There will be pictures and models of parks and open spaces, playgrounds, children's gardens in London and other cities, town gardens, London back gardens, &c. The materials and appliances comprise specimens of soils and suitable methods of planting for London, window-boxes, fern-cases and hives. Prizes may be offered for window-boxes *in situ* in crowded neighbourhoods, and for arrangements of cut flowers. Nurserymen will be asked to make displays of flowers. A committee was formed last year, but not early enough to complete the preparations for an exhibition in the summer of 1905. The committee is being reconstructed, and in the meantime offers of co-operation and suggestions will be received by Canon and Mrs. Barnett, Toynbee Hall, Whitechapel, E.

**The double white Colchicum.**—The illustration represents a well-established group of the double white Colchicum autumnale, growing at the foot of an old rockery where the soil never becomes very dry. The plant does not appear to be particular as to soil, but it dislikes exposure, drought, and disturbance. Our forefathers miscalled it autumn Crocus, ignoring at once both genus and family, and confounding it with another tribe of bulbous plants, many of which also flower in autumn, and are equally beautiful but entirely different.—T. B. HART, Woodside, Howth.

**School teachers examination.**—The Royal Horticultural Society will hold an examination in cottage and allotment gardening on Wednesday, April 11. This examination is intended for, and will be confined to, elementary and technical school teachers. Teachers and assistants desiring to sit for the examination should apply at once for a copy of the syllabus to the Secretary, Royal Horticultural Society, Vincent Square, S.W.

**Williamson Park at Lancaster** possesses natural charms which make it attractive to thousands of visitors who migrate to Morecambe during the summer. Mr. Thornton and his staff keep the grounds in excellent order. The park is endowed by Lord Ashton, and costs the town nothing. His lordship has recently made magnificent gifts, which will add to the beauty of the park. Mr. Bletcher, R.A., has designed at the cost of £30,000 an ornamental structure, the model of which will probably be

seen at the next Academy, and the work is now in progress. When completed from the balconies there will be wonderful facilities for viewing the delightful landscape, with Morecambe Bay and the Lake Mountains before one. The wooden bridge across the lake has been replaced by a handsome stone bridge, and the old wooden shelters have also been changed to permanent ones.

## THE KITCHEN GARDEN.

### PREPARING AND PLANTING POTATOES.

**B**REAK down the soil with an old four-tined fork, bent in the shape of a hoe, with a long handle. Select a dry day for the work. In making drills another tool is necessary, viz., a hoe-shaped trowel with a long handle; this is much better than a dibber, and the drills can be made more quickly than with a spade.



THE DOUBLE WHITE COLCHICUM (C. AUTUMNALE FL.-PL.).

The drills should be from 2 feet to 3 feet wide, and 12 inches to 18 inches from plant to plant, according to variety. One of the causes of disease is overcrowding, and it is found that more Potatoes are obtained from wide than close planting. Manure should be used in a half-rotten state when digging, and if a fair quantity is given, and the soil well worked, very little further will be needed. A dressing of soot once or twice may be applied with advantage, stimulating the crop and checking disease. When this or other crops are growing the hoe cannot be used too often, as this checks weeds and purifies the soil. Earthing used to be done by leaving a gully to catch the water for the plants, but the up-to-date grower has found that it is better to draw the earth to the stems as close as possible.

The value of sprouting Potatoes has been proved over and over again, and yet how many are there who neglect it? The yield over those not sprouted is sufficient for anyone, and by getting the tubers forward the crop matures earlier, and is, consequently, freer from disease. Some large growers are adopting the method of sprouting

seed, and have large buildings erected for storing. No heat should be applied, the aim being to retain the first shoots that grow, instead of breaking them off, which is usually done. In an airy place, with light, the sprouts become sturdy, and by this method there is no need to plant on a given date, as they keep advancing slowly, although not planted. Shallow trays will be needed, and the tubers should be placed in these with the eyes upwards. It is surprising how much of this work a man can do on a wet day, and the trays for small quantities can be made from old packing-cases.

Dilton Hill, Surbiton.

G. WALLER.

### A NEW "VEGETABLE."

THE *Daily Mail* of the 28th ult. contained the following particulars of the Latest Vegetable: "Quite the latest addition to the already comprehensive range of vegetables which now grace the tables of the gastronomical cognoscenti is Lava, pronounced 'Lay-va,' and served hot with roast mutton, instead of, or in addition to, the time-honoured Red Currant jelly. Lava, when

served, looks like Spinach, save that the rich emerald tint of Spinach is replaced by a mingled deep green and amber, a dark neutral shade, like the corner of a Rembrandt canvas. To the palate Lava brings a subtle commingling of pleasant salinity as of marinated fish, and a delicate hint of the sub-acid of lime or lemon—a lingering *bonne bouche* that produces a desire for further acquaintance. Lava is a marine legume, and is found among the wild rocks of Scotland's iron-bound coast. It grows there at the water's edge in long wavy fronds, and when in the sea displays a brilliancy of beryl and ruby. It is purveyed by the fishmongers, by whom it is put through a course of maceration in weak brine. When served from the hands of a *chef* Lava is flavoured with lemon. Gourmets welcome Lava as a highly palatable and very nutritious recruit to the table, and physicians classify it as a valuable diuretic. There is nothing new in this. The common British seaweed, known as Laver (*Porphyra vulgaris*), has long been used as food in some parts of this country, and is, or was, sold in the Swansea market for making a kind of bread. It is also used as food in Japan under the name



CALANTHE BRYAN GROWN FROM ONE BULB

of Nori. Many kinds of seaweed are used as food in different parts of the world. Irish Moss (*Chondrus crispus*) is largely used for feeding cattle.

## ORCHIDS.

### USEFUL ORCHIDS.—CALANTHES.

**P**ERHAPS no other Orchid is more generally grown in gardens where Orchids are not specially treated than the *Calanthe*, and we often find them much better grown in such places than by those who profess to be Orchid growers. And why? In the first place, they do not receive any coddling, and are generally given a position in a Melon or Cucumber house. If perchance they should be over-watered during the early stages of growth, the compost probably dries up quickly in the strong light, while the pots are generally half filled with crocks. The lack of compost is made up by the application of manure water when the new bulb begins developing. I do not believe it advisable to use so many crocks, neither do I believe in manure in any shape or form for *Calanthes*; I know well that good bulbs are made and good spikes developed with its aid, but so is disease, yet apart from the risk of disease better results can be obtained without it—the flowers are finer, they last much longer, and are produced

closer together on the spike, making them far more effective. Our plants are potted singly, large bulbs in 6-inch pots. The one illustrated is *Calanthe Bryan* grown from one bulb last spring. We give a fair drainage, just a little more than one would give a *Geranium*. They are potted in a compost of two-thirds loam and one-third leaf-soil, with a liberal sprinkling of coarse sand and small crocks. The loam should be fibrous if possible, but do not shake out the soil from it. Pot moderately firm, keeping the soil below the rim of the pot. The most important point until the bulb shows signs of swelling is to water with the greatest discretion. If the house is humid, and the plants are potted in the above compost they may be allowed to remain without water two or three days after they appear dry, and during the early stages of growth much longer; it is the over-watering previous to the swelling of the new bulb that often starts the dreaded black spot. When the new growth shows signs that the bulb is developing increase the water supply, and on no account allow the plants to remain dry. When the leaves show signs of decay gradually give less water and expose the bulbs to strong light, so as to ripen them thoroughly. W. P. BOUND.

*The Gardens, Gatton Park, Reigate.*

## THE FLOWER GARDEN.

### SOLOMON'S SEAL.

(*Polygonatum multiflorum*.)

**F**OR the wild garden, or in the shade of large trees or small shrubs, there are few more suitable subjects for planting than the well-known *Solomon's Seal*. It is easy to establish, and will thrive in almost any position, even in poor sandy soil, but it also responds to good cultivation in the shape of richer soil. Of elegant and graceful habit, it will reach to a height of 3 feet or 4 feet in a suitable position, bearing pendent bunches of one to four nearly white

flowers. This plant increases freely, and may be taken up and replanted any time after the foliage has died down. The rhizomes may be divided into small pieces, taking care to leave one or two crowns on each piece. Large groups in the open spaces of woods are very effective, and it comes in very useful for planting on the edges of shrubbery borders as well as among Ferns. There are several other species of *Polygonatum* in cultivation very similar to this plant, including *P. latifolium* and *P. biflorum*, but probably the most distinct in habit is *P. verticillatum*, with its whorls of long, narrow leaves on stems which reach a height of 5 feet. It grows best in moist, shady places.

W. IRVING.

### DOUBLING LENT LILIES.

REFERRING to Mr. Archer-Hind's notes on "The Doubling of Lent Lilies" in *THE GARDEN* of the 3rd inst., it would be very interesting if he could tell us whether the single blooms produced by bulbs previously carrying double flowers were indistinguishable, especially in the matter of stigma and stamens, from the ordinary single flower. Though I have never observed that *Daffodils* change from double to single, many must have noticed that the double *Narcissi*, such as *incomparabilis plenus* and the double *poeticus*, when grown in poor soil will do so; but I think the flowers never quite arrive at the true single form, and no doubt they could always be brought back again to the double state by planting in good soil. I should doubt very much if it were possible for a bulb naturally producing a single flower to be made to produce a double one by high cultivation; but if a double can positively turn single and again revert to double, an instance of which Mr. Archer-Hind records, it would seem impossible to prove what such an one really was originally.

I was very much interested to hear that Mr. Archer-Hind had gathered ripe seed from double *Daffodils*. I have often noticed clumps of what



GROUP OF SOLOMON'S SEAL.



would seem to be seedlings among (*Telamonius plenus* naturalised in the grass here on stiff soil over clay, far from the nearest single varieties, and these clumps, which eventually produce double flowers, seem to spring up in just the places where seed-pods from the nearest clumps of old bulbs would naturally fall—that is, within the stem's length of the old clumps. Having often searched for and never having found ripe seed on any double flowers, I was puzzled to know if these could really be seedlings. I think there is little doubt that they are; otherwise it is difficult to account for their presence. Possibly these double flowers produce very small seed in a seed-pod which escapes notice. It would be very interesting to know if the seed Mr. Archer-Hind procured was produced in pods of normal size.

St. Asaph.

W. A. WATTS.

### DONDIA EPIPACTIS.

THIS quaintly pretty little rock plant is now in flower, and with its closely-set blossoms of pale green and gold makes a pleasing spot of soft colour in the rock garden. It is a native of Carinthia and Carnida, and was introduced into this country nearly 100 years ago. Where several good clumps are grown in close proximity their effect is unique and pleasing, since the flowers are absolutely unlike any others. They are composed of a central golden boss, around which radiate six apple-green bracts with deeply serrated edges, the whole flower measuring from 1 inch to 1½ inches across. They are borne in such quantities as completely to cover the plant, and are carried on stems about 3 inches in length. The correct name of this *Dondia* is *Hacquetia Epipactis*, but it is better known by the title here given. It is an uncommon plant in gardens, and is apparently less grown now than formerly, when it was known by the English appellation of Gold Coin; but even this title seems now to have dropped into disuse. Still, it comes at a time when there are so few flowers of the open air, and is quite distinct. S. W. F.

the last decade, and Mr. Max Leichtlin tells me that he brought out *F. Leichtlinii* thirty years ago, having found it in a small neglected pot in the Botanic Garden at Padua. When flowering some *F. aurea* which were sent me a few years back by Messrs. Wallace of Colchester, it struck me that something might be done with the flower. *F. aurea* is, as those know who have grown it, a poor weedy thing with small yellow blossoms, and (in contradistinction to its relatives), what

your issue of February 17, the few plants I sent to the Royal Horticultural Society's meeting on January 23 had been slightly forced, which certainly told against them. I have, at the moment, some blooms on plants that have been kept cooler, which are much finer and (more substantial. In addition to the flowers of which I have been speaking, I have other hybrid seedlings flowered for the first time this year, the ground colour of one of them being almost snow



A NEW ODONTOGLOSSUM (*O. FOWLERIANUM*).

## NEW AND RARE PLANTS.

### A NEW ODONTOGLOSSUM.

ONE of the most beautiful hybrid Orchids exhibited before the Royal Horticultural Society is *Odontoglossum fowlerianum*, shown on the 6th inst. by Messrs. Sander and Sons, St. Albans; it received a first-class certificate from the Orchid committee. It was obtained by crossing *Odontoglossum Rossii* *rubescens* and *O. cirrhosum*. The sepals and petals are long and narrow; they are marked with dark red-brown velvet-like bars, the white ground colour showing through. The ends of the sepals and petals are purple, and the long lip is purple except at the top beneath the column, where it is rich yellow.

## THE GREENHOUSE.

### HYBRID FREESIAS.

**F**REESIAS appear to have more or less escaped the attention of the hybridist, the sorts that we have at present being, I think, all importations. *F. r. alba* was introduced from the Cape in the seventies, I am told, by the late Dr. A. Wallace of Colchester; at any rate, he was one of the first to handle it, showing it in 1878, and obtaining a first-class certificate. *F. aurea* came to us also from the Cape within

little scent it possesses is anything but pleasant. For several years I have been crossing it with varieties of *F. r. alba* and *F. Leichtlinii*, with results that have brought home to me what an easy thing it is to cross and what a worry to select. The seedlings have varied in size, shape, colour, and fragrance, but it is an encouraging fact to me that among them all I do not think I have had anything quite so bad as *aurea*, which I have used as the pollen-parent. In time, with careful selection, I quite hope to get a strain nearly, if not quite, as large as *F. r. alba* or *Leichtlinii*, with a rich full yellow colour and a good perfume. As "E. J." truly remarks in

white, certainly a purer white than I have ever seen in *F. r. alba*, and another a clear citron colour, a very substantial and distinct flower, with a most delicious perfume. I do not care at the moment to give the pedigree of these two seedlings; the alliance was in the nature of an experiment, the results of which appear to be, so far, satisfactory and encouraging.

In a recent number of *THE GARDEN*, a correspondent says that the Freesia is a rather neglected flower that should be more grown; with this I heartily agree. To those who have a little glass, even if unheated, it is one of the most charming and delicate of all spring-flowering



pot plants; to beauty of form and habit is added a most delicate perfume, and the treatment it requires is of the simplest. In order to obtain good flowers, I use a rather rich compost when potting the bulbs, and give the plants, when well rooted, alternate doses of Clay's Fertilizer and weak, diluted chicken manure at intervals of ten days or a fortnight, with most satisfactory results.

Rye.

F. HERBERT CHAPMAN.

### MIGNONETTE IN POTS.

THE article on page 113 on the growth of this charming annual in small or ordinary market pots is instructive. For growing plants for cutting and for conservatory decoration in March, April, and May, I find that those plants which are grown into specimen size, from which several hundred spikes of flower can be cut, are the most economical, and if not required to provide cut flowers, they are of great beauty when trained as standards or huge bushes. Such plants if well grown will give flower-spikes 1 foot long quite easily. I have tried many varieties. The best is Miles' Spiral, which has all the attributes of size, colour, perfume, and vigour of growth. The month of May is the best time to sow the seed. Put two or three seeds in quite small pots filled with sandy soil, and set in a cold frame at the foot of a north wall, where the trouble of shading the frame will be dispensed with. As soon as it can be seen which is the most vigorous plant, remove the others, giving this all available space to encourage a robust, stocky growth. Transfer the plants to larger pots directly they are well furnished with roots, using a compost of loam and leaf-mould at first, gradually increasing the loam and adding half-decayed horse manure to induce a vigorous growth. At no time allow the roots to become matted around the sides of

the pots until the plants are in their final size, pots of 10 inches diameter for the largest specimens. This will be about the end of September. Neglect of the roots in the early stages of growth is conducive to weakness, loss of leaves, and, what is worse, a full crop of red spider upon the leaves, which is detrimental to that freedom of growth so desirable. The plants can remain behind the wall in frames until the early part of September, when they should have a southern exposure in a cold frame and be shaded from bright sun, syringing the plants twice daily. A thick bed of coal ashes is the best base to stand the plants upon when in frames, as it is cool and moist.

When the plants are 6 inches high it must be determined in what form they are to be grown. If for standards, the growth should be confined to a single stem until the desired height is attained—18 inches or 2 feet. Then the point of growth should be pinched out to induce other shoots to grow and form the foundation of the future head. Continue to nip out the point of each shoot at every few inches until the desired shape is obtained. A trellis of galvanised wire having been made 1 foot or so in diameter and 10 inches deep, secure to a stout stake in the pot. Over this train the shoots until the trellis is covered; then allow the plant to flower.

Specimen bush plants, eventually to be 3 feet or more high, should have different treatment. Stop the plants at 6 inches, and continue to do so until the desired size is attained. At the end of September remove the plants to a light, airy greenhouse, keeping them as near to the glass as possible to avoid weakly growth. Supply the roots regularly with water as required, and when the pots in which the plants are to flower are full of roots, give weak liquid manure freely and an occasional sprinkling with Clay's or some approved fertiliser. Ample space in which to

grow, regular attention to watering, and regulating the growths are salient points in the growth of good specimens of this favourite flower.

E. MOLYNEUX.

## TREES AND SHRUBS.

### A FINE HORNBEAM.

**R**ARELY is such a splendid specimen of the Hornbeam (*Carpinus Betulus*) to be met with as that portrayed in the accompanying illustration. The tree is growing in St. Pierre Park, some three miles from Chepstow. Its height is about 65 feet, the diameter of its trunk at 5 feet from the ground is 11 feet 4 inches, and its branch-spread, in whichever direction it is taken, is almost exactly 100 feet. It stands on level ground close to a rise, on which is a colony of about thirty fine old Yews, a few dead or dying, but the remainder in perfect health. The finest of these range from 50 feet to 70 feet in height, with a trunk girth of over 22 feet. In one case an Oak and Yew have grown together and form a solid trunk, as of one tree, for a height of 6 feet.

S. W. FITZHERBERT.

### RED-BERRIED MISTLETOE.

THE red Mistletoe, referred to on page 114, is in all probability *Viscum cruciatum*, which has been cultivated as a parasite on the Olive for some years at Kew. In general appearance it much suggests our own British species, the main difference being the larger size of the male



THE FAMOUS HORNBEAM IN ST. PIERRE PARK, NEAR CHEPSTOW.

flowers, but more particularly the red colour of the berries. It was figured in the *Botanical Magazine* about four years ago, and from an article by Sir Joseph Hooker, which accompanied the illustration, it would appear to be decidedly common in some parts of Southern Europe and Asia Minor. In Granada it grows usually on Olive trees, which it sometimes injures and sterilises, but it also occurs on *Crataegus*, *Populus alba*, and *Pinus Pinaster*. In Syria, Post, in his excellent "Flora of Syria," gives as its range Central and Southern Palestine, while there are specimens in the Kew Herbarium from the Garden of Gethsemane, from the Temple area in Jerusalem, and from Moab. As in Spain, so in Syria, it is sometimes found on a Thorn. As a garden plant it is decidedly pretty, while it is of great interest from its affinity to our native Mistletoe, and from the historical associations of some of the districts in which it grows wild. At present it is impossible to obtain it from nurseries, but the day may come when the tropical *Viscum* and *Loranthus* will have a place in British gardens. Their relative, the common Mistletoe, has now proved quite amenable to cultivation.

H. P.

### THE MEZEREON (*DAPHNE MEZEREUM*).

THE Mezereon, as this *Daphne* is generally styled, is a native of Europe and occasionally found in Britain, but is not on that account to be despised for garden decoration, being, in the winter, when its leafless shoots are studded throughout their length with blossom, an attractive picture. The type bears reddish purple flowers, and there is a variety, *atro-rubra*, with deeper-tinted blooms. The form *alba* has white flowers, and *alba fl.-pl.* double white. There is also a variety named

*grandiflorum*, which has larger blossoms than the type, and comes into bloom in November, often bearing flowers from that date until March. In a collection of seedlings plants are to be found showing considerable variation in the colour of their flowers. The berries which succeed the blooms give the little shrubs another season of brightness, as, for the most part, they are of a glowing red colour, though some of the white-flowered varieties bear orange-yellow fruit. A group of a dozen or so bushes of the different forms make a pleasing sight during the months of January and February, and again later on when they become covered with bright berries. As is the case with the majority of the *Daphnes* the flowers of *D. Mezereum* are fragrant.

S. W. F.

### ANDROSACE LANUGINOSA.

THIS beautiful rock plant, a native of the Himalayas, although sometimes met with growing vigorously in gardens, often gives considerable trouble to cultivators. *A. lanuginosa*, the subject of the illustration, is the most beautiful of all the *Androsaces*, its rosy lilac, yellow-eyed blossoms being very lovely, and produced over a lengthened period. It commences to flower early in May, is at its best towards the end of June, and carries a certain amount of blossoms until the late autumn. In their native altitudes the plants are exposed to severe frosts, and are often covered with deep snow, but in our climate, with its alternations of frost and damp, muggy weather, the *Androsacea* often succumb. To illustrate the varied behaviour of *A. lanuginosa* under cultivation, the opinions of two well-known growers of rock plants may be cited. One writes of it as "one of the easiest grown of all alpine plants"; while the other states that he finds "no

plant more difficult to cultivate." Between these two extremes are many degrees of success and failure. The silver-grey, silky foliage is very retentive of moisture, and often suffers in the winter from being frozen when wet. Even where this plant has flourished in a garden for years there is no certainty that it will continue to do so.

On page 171, Vol. LXL, is an illustration of a splendid mass of this *Androsacea* growing in a Devon garden. This remained in the best of health for years, and then suddenly died, since which time it has absolutely refused to grow in the garden, though strong young plants have been tried again and again, and the whole of the old soil removed and prepared compost of the best description substituted. The owner of the garden is a most successful grower of the rarer rock plants, but for the past five years has been utterly unable to induce *A. lanuginosa* to live, although previous to this he experienced not the slightest difficulty with it. The accompanying illustration shows a breadth of *A. lanuginosa* photographed at the end of May, before it reached its fullest perfection. Two small plants were put out from 2½-inch pots in the autumn of 1903, and have now increased until their sheet of foliage measures over 4 feet across. The plants are growing in an elevated bed, from which their growths trail downward over rocks to a lower level, and the compost in which they are doing so well is fibrous loam and leaf-mould in equal proportions, mixed with almost the same amount of very coarse sand and limestone chippings, while the surface of the soil was entirely covered at the time of planting with larger chips of limestone. During the past two winters a light has been fixed in a slanting position about 1 foot above the foliage, so as to keep it comparatively dry.

South Devon.

S. W. FITZHERBERT.



ANDROSACE LANUGINOSA IN A DEVONSHIRE GARDEN.

## GARDENING FOR BEGINNERS.

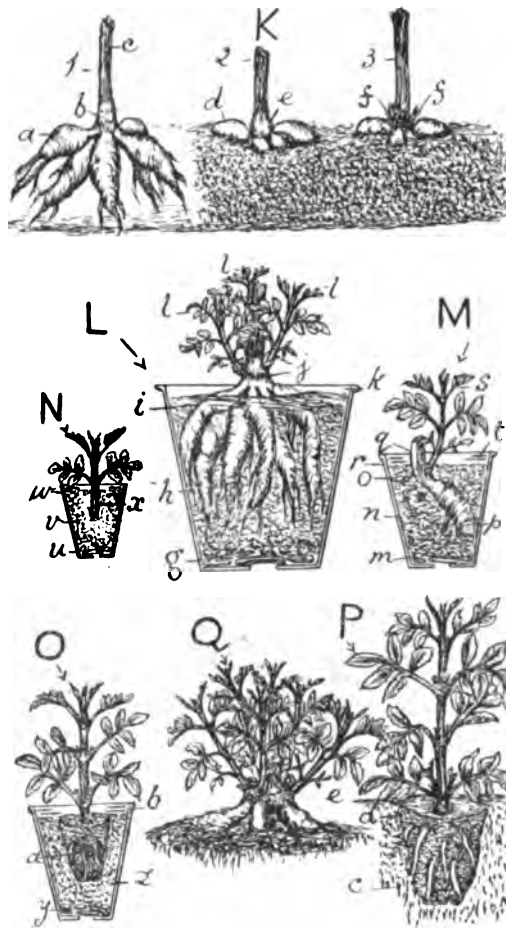
## SIMPLE HINTS.

**PROPAGATING DAHLIAS.**—By *Cuttings from the Stools.*—K. Starting the roots: 1. Rootstock as it appears in spring, having been kept dry and safe from frost during the winter, showing, *a*, the fleshy roots or tubers that may be placed on a bed with or without bottom-heat or in a shallow box, and should be covered with soil; *b*, crown (where buds are and whence growth will spring), not to be covered with soil; *c*, old stem dead and decayed to dotted line after breaking off there. 2. Rootstock properly placed in soil for starting: *d*, portions of fleshy roots that may appear above soil so as not to bury the crown; *e*, crown that may or may not show buds or eyes, and not covered with soil. 3. Rootstock starting into growth: *f*, young shoots pushing from crown. These, when they have made two joints and the growing point, may be removed as cuttings, it being all-important that the rootstocks be placed in a position where they have full exposure to light, and in a temperature of 55° to 85°, not as frequently done, left under stages and in positions dark and distant from the glass, until the shoots are a considerable length, drawn, weak, and long-jointed. L. A rootstock that has been potted and placed early in spring to push shoots either for division (the grower having no convenience beyond a greenhouse) or to furnish cuttings, the grower having the convenience of a hot-bed; the potting shown in section: *g*, drainage (large crock over aperture, similar-sized pieces to make level, and a few cinders, with layer of partially-decayed leaves or rougher parts of compost); *h*, soil (any loose and gritty matter, such as refuse of potting bench, worked among tuber-like roots of rootstock); *i*, rootstock of Dahlia; *j*, crown (where "eyes" are situated, and from which shoots push) kept clear of soil; *k*, space for holding water in watering, giving just enough, and not on crown, but at side of pot to keep soil fairly moist; *l*, shoots that have pushed and attained size suitable for either division of plant (thus giving three plants) or for taking off as cuttings (this being indicated at the dotted cross lines) and a succession of cuttings. M. A division potted into 4½-inch pot, the tuber being out to fit the pot: *m*, drainage (good, but not excessive, secured with rough of compost); *n*, soil (loam, leaf-mould, and sand in about equal parts); *o*, division; *p*, tuber shortened; *q*, point where cut made in detaching from rootstock; *r*, depth of potting; *s*, young shoot; *t*, space for holding water in watering. If shaded for a few days after detaching and potting will soon become established even in a greenhouse, and make fine plant for planting out at end of May, being duly hardened off; if other shoots spring from base, cut them off while quite small. N. Cutting properly trimmed and inserted in 2½-inch pot: *u*, drainage (crock and a little rough material); *v*, soil (leaf-mould and sand); *w*, surfacing of silver sand; *x*, cutting inserted with base resting on, and stem surrounded with sand. Placed in a frame or hot-bed, shaded, cutting will soon root in a bottom-heat of 70°, and the plant may then be hardened and repotted. O. Rooted cutting shifted into 4½-inch pot: *y*, drainage; *z*, soil; *a*, ball of soil and roots; *b*, space for holding water in watering. P. A plant raised from a cutting at planting out stage: *c*, soil (well prepared); *d*, ball of soil and roots; *e*, depth of planting (never below lowest leaves). Q. Rootstock L, showing second batch

of cuttings that may be taken similarly to first batch; other growths will follow, but over-propagation is a great evil.

*Some Propagating Notes.*—In nurseries the propagator is always busy winter and summer. If he is not putting in cuttings, he is grafting or layering. His sole object is to increase stock, and his means for the work are not limited; but in private gardens or the small gardens of the amateur the work comes in seasons, and with most amateurs the propagating season begins in March. The propagating house at this season should have a night temperature of not less than

certainly. Where possible I have taken them off with a bit of old wood, but young shoots, with a couple of eyes cut smooth just beneath the lower bud, will root very quickly without pots or soil if placed in warm, moist Cocoanut fibre; but as soon as the roots are a quarter of an inch or so long the cuttings should be started singly in small pots, and for a time plunged in bottom-heat to make more roots. The percentage of loss ought not to exceed 5 per cent., and the only limit to the number which may be made in a very short time will be the supply of cuttings, but cuttings from outside will be of no use, as the wood must be in a suitable condition with the sap active. Cuttings of stove or warm-house plants will root freely under similar conditions. Crotons, Indiarubbers, and Dracenas, where these are old matted plants, may be cut down, and the stems cut into single joints and immersed in warm moist fibre.—H.



PROPAGATING DAHLIAS BY CUTTINGS FROM THE STOOLS.

60°, or a few degrees more. There may be other means of ventilation, but the lights are seldom opened. If the sun is warm a shade is used, and ventilation would only retard the work. There should be a bottom-heat plunging bed on one side where the heat is steady at 85° or 90°. I have used sand for plunging the pots in, and Cocoanut fibre for several purposes. Many cuttings will root in the fibre, if warm and moist, in a few days without pots or soil. I like sand for plunging small pots in, as the heat circulates so freely in it.

*Roses from Cuttings.*—When Roses are forced early the young shoots, when getting a bit firm in March or April, will strike with the greatest

*Some Good Early Potatoes.*—The old Ashleaf, where it has been kept true, is excellent as a first early. Years ago I had a variety of the old Ashleaf with blotched or mottled foliage, which was ready to dig a week or ten days earlier than the type. This may perhaps be in existence somewhere now, but I have lost sight of it since I left this district. Though the foliage was blotched with yellow, the plants were perfectly healthy, and they forced well. Daniels' Duke of York still holds its position as a good early kind. It cooks well all through the season, is generally free from disease, and, if the plants are confined to one stem, as all early Potatoes should be, there are no very small tubers. Other good kinds are Sutton's Ninetyfold and Sir John Llewelyn. Early Puritan is a good deal grown in some districts.—H., Cambs.

## THE TOWN GARDEN.

**Wall Fruit Trees in Flower.**—Peach, Cherry, Plum, and Apple trees on walls will soon be in flower. The blossoms should be protected from frost at night and also from very cold wind during the day by light canvas. It can easily be fixed by placing poles from the top of the wall to the ground to support the canvas. The latter should not touch the trees, but should be so far away that it cannot be blown against the flowers. The covering should be put on at night and removed first thing the next morning.

**Watering Wall Fruit Trees.**—Every year there are numerous complaints from readers about the blossom falling from their fruit trees. This is sometimes, but not always, due to exposure to cold; often it is due to dry soil. At this season few people think of watering anything planted out in the border, and on first thought it does seem unnecessary. With trees growing against walls, however, the case is different. If they are protected by some sort of coping at the top the roots get less water than ever, but even if the wall has no coping, wall fruit trees receive far less than trees and plants in the open. The soil close by the wall is often found to be dry towards the end of March. If, then, the soil appears to be at all dry when the wall fruit trees are coming into blossom, give it a good soaking of water. If this were done more often there would be fewer complaints about flowers falling.

**Newly-planted Roses.**—We have received a great many letters recently asking if newly-planted Roses ought to be pruned, and if so, how? The answer is, the shoots ought to be pruned hard back to within 2 inches to 4 inches of their base. This may be taken as a general rule. The essential point is to cut back the shoot to a hard plump bud (pointing outwards, if possible, in the case of dwarfs) near the base. This may be from 1 inch to 3 inches of the ground, though the nearer the base, the better furnished with growth the plant will be eventually. The reason Roses should be cut hard back after planting is to make them send up strong shoots from the base, which otherwise they would not do. It is especially important in the case of climbing Roses, for the larger and stronger the shoots, the finer will they flower. It does not so much matter whether the shoots are pruned back to 2 inches or to 4 inches so long as the bud selected is a good one. If the plants are weak when received, they need to be cut back harder than stronger plants. Discrimination must be used. If a dwarf plant has four good shoots, one of them might be left, say, 9 inches long, another 6 inches, cutting back the other two hard. If one receives plants of a climbing Rose with several good shoots, one or two of these may be left to blossom; they must be cut back immediately afterwards.

## GARDENING OF THE WEEK.

## FLOWER GARDEN.

**PRUNING ROSES**—Roses of most kinds may now be pruned. Climbing or what are known as rambling or pillar Roses are the earliest to commence growing, consequently they should be dealt with first. If these have been treated as advised in a January calendar, by having all dead wood and useless sprays removed, very little pruning will now be required beyond the shortening of unripe shoots; but if they have been left until now, very great care must be exercised in disentangling the shoots, as the strong, active buds are so easily rubbed off. Hence the advantage of partly pruning these kinds in the winter.

**TEA ROSES, HYBRID TEAS, AND NOISETTES** in sheltered positions on walls are making active growth, and should be attended to at once, but in cold aspects, although probably Hybrid Teas and Hybrid Perpetuals are bursting into growth, it is advisable to leave these until the last, as the pruning would excite the dormant buds before the danger from late, destructive frosts is over. Clear all prunings and weeds from the beds, and mulch the beds with well-decayed farmyard manure, or, if later on, annuals are to be sown among the Roses, a dressing of some good artificial manure may be applied now, and the beds lightly forked over.

**BULBOUS PLANTS** are pushing up through the earth with renewed vigour. Some have already made considerable growth; others are tiny, perhaps delicate, little plants that we treasure. All alike will now require careful protection from mice, hares, and rabbits, and seeds protection from birds. Pheasants are very fond of many kinds of spring flowers, Anemones, especially blanda, spennina, and the nemorosa section. If they once begin on them they will quickly pick off every bud. They are also very partial to Liliun auratum, and will eat every bit quite down to the crowns of the bulbs. If any Liliuns have been planted in peat-beds among Rhododendrons, Azaleas, &c., in spots where pheasants are likely to frequent, they must be protected by small guards made of wire-netting, or they will be destroyed. At this time of the year the ravages of slugs must be especially guarded against. The slug is a most insidious enemy, frequently eating off the tiny growth of hardy plants before they appear above ground. Perforated zinc collars placed around the plants and pressed into the ground about 1 inch make a good protection.

**EREMURI** are now growing strongly, and probably elwesianus, himalaicus, robustus, and its varieties are already pushing up flower-spikes. These must be protected. Water lodging in the crowns of the plants and becoming frozen destroys the tips of the flower-spikes, otherwise they are perfectly hardy. Last year we saved all the spikes from injury from frost and snow by placing pads of tissue paper in the crowns at night, removing them in the morning. E. Bungei and Algae, being later, require no protection whatever.

**GRAVEL WALKS** may now be put in order. If they are overrun with moss, or have become dirty, the surface should be turned over and a sprinkling of gravel added. Rake level and clear off all large stones. Roll once or twice a week, so that the surface may become smooth and agreeable to walk upon. G. D. DAVIDSON.

Westwick Gardens, Norwich.

## ORCHIDS.

**THUNIAS.**—T. alba, T. Benson's, T. marshalliana, and the hybrids T. veitchiana, T. magoriana, T. chardwarensis, and T. winniana are deciduous Orchids which require a complete rest during the winter months. They are well worth growing, flowering as they do in the summer, when Orchids are somewhat scarce. The growths, too, are very elegant, bearing pendulous heads of six or more flowers that somewhat resemble Phaius, under which name some authorities place them. They are now producing their new growths at the base of the old pseudo-bulbs, and should be attended to with regard to repotting. The plants should be turned out of the pots and all the old compost removed, leaving just enough of the dead root to keep the plant steady in the new pot. Thunias may be grown singly in 5-inch pots, or three pseudo-bulbs may be potted together in a 7-inch pot to form specimens. The compost should consist of two-thirds good fibrous loam, one-third peat, and one-third leaf-soil; the whole, together with coarse silver sand and finely broken crock, should be mixed. The pot should be crocked to one-quarter its depth, in which a stake sufficiently strong should be placed to keep the plant in position. Then pot moderately firm to within half-an-inch of the rim of the pot with

the compost, and secure the plant to the stake. In the case of specimen plants three pseudo-bulbs should be placed in the centre of the pot about 2 inches apart, with the young growths facing the rim in opposite directions, and be made secure with a stake in the centre. The plants should be grown as near the roof-glass as possible in the stove or East India house. Providing the compost in which the plants are potted is moist, no water at the root will be necessary for two weeks, but they should be syringed overhead and between the pots two or three times on bright days. When the roots get a good hold of the compost water should be given more freely; and when the flower-buds can be felt in the growths an occasional watering with weak liquid cow manure will benefit them.

**PROPAGATION.**—They are easily increased by cutting away the old pseudo-bulbs when the growths have advanced to the flowering stage, and placing them on the stage underneath the growing plants where they will be syringed frequently. They usually break into growth at each node, and these should be potted in small pots as soon as they commence to root. Another satisfactory way of propagating them is to cut between each node, as advised in last week's calendar for Dendrobiums.

The present month is considered by Orchid growers to be the beginning of the Orchid-growing season. Syringe between the pots of Cattleyas two or three times a day, and if the weather outside is favourable spraying them overhead will help to plump the pseudo-bulbs. Great care must be taken with watering at the root. A regular temperature is much better than one that fluctuates considerably. All Orchid houses now need shading. As a guide, I may say that the temperature of the Cattleya house should be 60° by night and 65° by day, allowing a rise of 5° with sun-heat. W. H. PAGE.

Chardwar, Bourton-on-the-Water, Gloucester.

## FRUIT GARDEN.

**GRAFTING**—The practice of grafting is a ready means of converting trees of Apples and Pears, that are in a healthy condition, but bearing indifferent crops of fruit, into more profitable specimens in a comparatively short space of time. If the trees are in vigorous health regrafting with some reliable varieties—suitable to the locality—is more profitable than cutting them out to make room for young trees. The time to graft is when the sap becomes active and the bark parts easily from the wood. There are many methods of grafting, but in private gardens those generally adopted are the crown or wedge grafting for large trees, and whip grafting for smaller shoots or young stocks. The scions, which should have been cut some time previously and laid in a cool shady place to keep the buds dormant, must be prepared with a sharp knife. See that the bark of the scion and stock fit closely on one side at least, and secure them with raffia or soft cotton. When there are but a few stocks to be grafted clay may be used for excluding air from the scions, and it should be well worked previous to being used. Grafting wax may be bought ready for use, and is, perhaps, the most convenient material.

**APPLY ANOTHER DRESSING** of fresh-slaked lime to Gooseberry and Currant bushes where the sparrows are troublesome with the buds. Paraffin emulsion sprayed on them has also some effect; but either substance soon gets washed off and requires renewing.

**THE BLACK CURRANT MITE** is becoming so prevalent in many parts of the country that constant attention and the utmost vigilance are necessary to prevent the entire destruction of this crop. The swollen appearance of the buds is a sure indication of its presence, and these should be carefully collected and burnt. But where the pest has become thoroughly established, cutting the shoots hard back or rooting out altogether will eventually have to be done. Where



**AMERICAN BLIGHT** or woolly aphid has made its appearance the affected parts should be frequently painted over with a strong paraffin emulsion and rubbed into the bark with a stiff brush. Close attention and repeated applications will generally result in the complete eradication of this pest the first season. Canker on fruit trees does not seem to yield to treatment locally. It is more of a constitutional disease; therefore prevention in the direction of well-drained ground, the selection of varieties suitable to the district, and the encouragement of healthy surface roots, will go a long way to mitigate this evil. Wounds caused by bruises to the trunk or branches nearly always result in canker, and a local remedy, such as Stockholm tar, may be applied to the affected part after paring all the diseased bark away.

**PREPARING SOIL.**—In addition to the old stools of Chrysanthemums and any other unexhausted soil that has been highly fed, burnt garden refuse, road parings and scrapings, lime rubble, and the remains of the old loam heap should be saved; they will make a capital mixture in which to plant young fruit trees or to renovate exhausted borders. The quarters on which bush fruits are growing should now receive a top-dressing of artificial manure, lightly forking it in and taking care not to disturb the roots. Raspberries will be much benefited if they receive a top-dressing at this date, and if the waste material from the garden, such as the remains of vegetables, weeds, leaves, &c., be well decayed and mixed with some fresh lime, it will provide a suitable compost at a trifling cost, besides disposing of large quantities of objectionable matter. **THOMAS WILSON.**

*Glamis Castle Gardens, Glamis, N.B.*

### KITCHEN GARDEN.

**VEGETABLE MARROWS.**—Make a sowing of these now. Insert the seeds singly, and on end, in clean pots 3 inches in diameter. Use a compost of chopped loam and leaf-mould or old Mushroom bed material. Do not have the compost very fine, nor make it very firm in the pots; the seeds should be just covered. Place the pots in a temperature of 55° to 60°, with a little bottom-heat if possible. Small-growing varieties are generally most appreciated in the dining-room. Pen-y-byd is a good round variety, and the Custard Marrow makes a nice dish.

**CARROTS.**—The main sowing of these should be made if the ground is in a workable condition. The soil should be deep and well worked, and the lighter the better. Stony ground should be avoided. Where wireworm is troublesome, a dressing of an approved insect exterminator should be forked in. I use annually a preparation called Sootigene, which I find very effective; it acts as a manure also. Rake the surface as smooth as possible before drawing the drills, which should not be less than 12 inches apart for maincrop varieties. The intermediate varieties are, as a rule, the most serviceable, but a stump-rooted variety, such as Model, should also be included. Sowings should be made at regular intervals of early or forcing varieties for a supply of small young roots, which are pulled and used as they become full-sized. A calm day should be chosen for sowing, or the seed will be scattered by the wind. As a catch crop a few Radish seeds can be mixed with the Carrots and sown together, the Radishes being ready for pulling some time before the Carrots are any size.

**PARSNIPS.**—These should also be sown in the same kind of soil if possible. Do not dig in long manure. Sow on a calm day. The drills for Parsnips ought to be 18 inches apart. Improved Hollow Crowned is an excellent variety.

**ASPARAGUS.**—If new beds are to be made the ground should have been trenched and manured last autumn. If the soil is heavy add road scrapings, decayed leaves, and old soil from the potting shed. Where the ground is well drained Asparagus may be grown "on the level," but generally, for permanent beds, the ground is

formed into raised beds 3 feet or 5 feet wide, with an alley between of 2 feet in width. The seed should be sown as soon as possible, three drills in beds of 5 feet, and two drills in beds of 3 feet, the outside drills being 12 inches from the edge of the bed. Make the drills about 2 inches deep. Quicker results are obtained by planting two-year-old crowns. The best time for planting crowns is just as growth is beginning; place the crowns 18 inches apart, spread the roots out carefully, and cover to a depth of 3 inches. See that the crowns do not suffer from dryness before planting. The alleys between the beds can be used for the first year or two for growing Lettuce, Cabbages, and Cauliflowers. Some of the winter dressing on beds that will shortly be producing "grass" can be raked off into the alleys, and the surface of the beds loosened very carefully with a fork.

**SEEDS.**—A sowing can be made out of doors in a sheltered position of Cabbage, Cauliflower, Brussels Sprouts, Lettuce, &c. Cover with a net for protection against birds. **J. JAKES.**

*Bryanston Gardens, Blandford.*

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**PLANTING SMALL GARDEN (West).**—Yes, Ferns would do well in the shaded beds H and K. Try the Japanese Anemone also. You would not get anything to grow well among the Willows if these are planted closely; if, however, there is good soil between, plant bulbs such as Snowdrop, Wood Anemone, Bluebell, and Periwinkle, Euonymus radicans, and Ivy on the banks. Border M would be the very best for Roses, and in border N they ought to do well. The best plants for borders Q and P are the Violas or Tufted Pansies; they might do really well there if the soil is deep and well dug. You could plant these around the bed in April. On border L plant such good hardy perennials as Delphinium, Lupin, Hardy Chrysanthemums, Phlox, Montbretia, Hollyhock, Helianthus Miss Mollish, Helenium, and Michaelmas Daisies. Sow some good annuals, such as Mignonette, Lavatera, Nigella, Linum grandiflorum rubrum, and others. They fill up spaces excellently. Climbing Roses for the pergola should include Reine Olga de Wurtemberg (red), Mme. A. Carrière (white), Alberic Barbier (cream), Dorothy Perkins (pink), Félicité Perpetué (white), and Clematis Jackmani, and Honeysuckle should also be planted. Crimson Rambler is a splendid Rose for an arch. You might cover another with Clematis Jackmani, and another with Honeysuckle. Climbers for north fence or wall are winter and summer flowering Jessamines, Forsythia suspensa, Ivy, Ampelopsis Velutina (Virginian Creeper), and Fire Thorn (Ornithoglossum Pyracantha); Morello Cherry if you want a fruit. Yes, you can grow a vine out of doors if you have a very sunny wall

facing south or south-west. You should grow the variety Reine Olga, a fairly new one.

**FOREST TREE ROOTS (Enquirer).**—We are afraid that instead of killing the roots of the Ash trees by opening the trench at times, you have helped them to spread, as they have enjoyed the newly-trenched soil. We think you would not be justified in building a concrete wall, on account of the expense. If you use poisonous substances you will kill your crops. Gas-lime would for a time kill the roots, but if strong enough for this it would poison the soil. The same remark applies to liquid from the gas-works; this would do at the base or low down, but not on the surface. We found the following effective in the case of some large Elms in a Rose garden: Ordinary thin roof-slates were placed upright and close together, and near the trees the space was puddled with clay and gas-tar, and made quite firm. The roots gave no more trouble. Another way would be to get out a narrow trench the full depth, and fill in with prepared tar mixture as used for walks.

**BOWING SWEET PEAS (Amateur).**—If for a show at the end of July, April 14 would be a safe date for sowing in the open ground. The finest blooms would be got at that time from ordinary managed soil. If the soil is properly prepared and the plants are fed with liquid manure three weeks prior to the show, it would be a pity to waste a month's bloom, as the flowers would be equally fine from seeds sown on March 14. The stems might be a little shorter, but the colour would be richer.

**COLOUR OF CHRYSANTHEMUMS (J. W. T.).**—We give the colour and height of the Chrysanthemums in your list. Marie Massé, lilac mauve, 3 feet; J. B. Pitcher, pearly white, 3½ feet; Sunshine, yellow, 2½ feet; Harvest Home, crimson and gold, 3½ feet; White Quintus, pure white, 3 feet; Ryecliff Pink, salmon pink, 3½ feet; George Waring, yellow, 2½ feet; Mme. C. Desgrange, white, 2½ feet; Baronne G. de Brailles, white flushed pink, 2½ feet; and M. Albert Galy, golden red, centre gold, 3 feet. Many of your varieties are very old, and there are now much better ones.

### THE GREENHOUSE.

**FRUIT AND ROSES IN GREENHOUSE (L.).**—Your idea of planting fruit trees or Roses in a raised bed in the middle of the greenhouse does not seem to us to be a good one. There they are farthest away from the light, and in the middle of the house would sure to be damaged more or less. You would do far better to make the staging on either side wider than 2 feet (4 feet would not be too wide), and then plant a Rose at the end of the house where you could prepare a proper border for it, and where it would have room to grow and develop; you could then train it against wires fixed at the end of the house. We should not advise you to grow fruit trees in the greenhouse; you will not find them satisfactory. In preparing for the Rose you should dig out the existing soil 2 feet deep, placing some broken bricks at the bottom for drainage, and filling the hole with good turfy soil with which some well-decayed manure has been mixed.

**CINERARIAS (K. K. T.).**—The large-flowered florists' Cinerarias are easily-grown and invaluable plants for greenhouse or conservatory. If you wish to have the plants in flower in spring, you should sow seed in July. Prepare some light soil, consisting of loam, leaf-soil, with sand, mix thoroughly, and pass it through a small-meshed sieve. Seed may be sown in either pans or pots. First drain them properly; then fill with the sifted soil. Cover the seed slightly with the same soil. Cover the pans or pots with glass, and place in a shady part of the greenhouse or cold frame. Wipe the sheets of glass every morning to prevent accumulated moisture dripping upon the soil. When the seedlings appear tilt the glass every day, and in a few days remove altogether. When large enough to handle, prick off the seedlings separately into small pots or several in other pans. For a few days after potting keep the frame close, but afterwards, when the plants are making roots freely, give more air. As the plants make progress repot them into larger pots; the final potting should be into pots of 6 inches or 7 inches diameter. During the summer grow the plants

in a cold frame, preferably facing North. Cinerarias like a moist, cool atmosphere; they should, if possible, be put on a bed of ashes. Although they dislike heat, they must be protected from cold in winter by keeping a little warmth in the pipes. They are especially liable to be attacked by green fly. To kill this fumigate with XL All Vaporiser.

**WINTER-FLOWERING PELARGONIUMS** (*Mrs. Scott-Elliott*).—Some of the best zonal Pelargoniums are Countess of Buckingham, Mrs. Brown Potter (pink), White Lady and Snowdon (pure white), Prince of Orange (orange), Mrs. C. Pearson and Mrs. G. Cadbury (salmon), T. Bevan (scarlet), Scott Turner and Percy Waterer (crimson), Trilby and Duke of Connaught (purple), and Princess of Wales and J. M. Barrie (cerise). There is now a very large number of varieties of zonal Pelargoniums, many of which closely resemble each other. The above, however, are good and distinct.

**FREESIAS** (*K. K. T.*).—The bulbs should be potted in August, using a soil consisting of loam, leaf-mould, decayed manure, and sand. Pots of 5 inches in diameter are suitable; take care not to crowd the bulbs. Keep them in a cold frame until the weather begins to get cold and damp, say, the end of October. Water very sparingly until the bulbs are growing well; in fact, little or no water will be necessary for some weeks after potting. At the end of October move the plants into a greenhouse with a night temperature of about 55°. They will begin to flower early in the New Year. Freesias dislike a high temperature—that of a warm greenhouse, 55° to 60°, is most suitable. As the growths progress they should be carefully and neatly staked, for they are slender and are easily damaged. When the flower-spikes show you may give diluted liquid manure occasionally. After the flowers are over gradually give less water until the foliage has died down. Then place them in a sunny frame, so that the bulbs may be well ripened. Repot the bulbs in August.

**CARNATION BLOOM IN AUTUMN** (*Enquirer*).—Sow seed of the Tree or winter-flowering varieties in December or very early in January. Grow the young plants on in boxes under glass; they will be good-sized plants by the first week in May. Plant out, if possible, on a south border in good soil, and they will flower freely in the late autumn months out of doors until frosts and cold rains spoil the flowers.

**THE BOTTLE BRUSH TREE** (*F. D. Hall*).—The young shoots that were pushed out after the plant was cut back should be allowed to grow, as it is upon these that you must depend for the next display of blossoms. If you cut off these young shoots a season will be lost. When repotting is needed, it should be done as soon as the young shoots are about half-an-inch in length, but, as it is now too late to repot yours, the better way will be to give it a good light position in the cool greenhouse, and then an occasional dose of weak liquid manure and soot water mixed will supply the necessary stimulant towards the production of flower-buds.

**SOIL FOR BEGONIAS** (*Charles Jones*).—A suitable compost for tuberous Begonias may be made up of four parts good loam to two parts leaf-mould, one part dried cow manure, and one part silver sand. As the pots get full of roots they may be fed occasionally with weak liquid manure and soot water mixed. In watering, rain water should, if possible, be always used. A check of any kind, such as drought or an excess of moisture at the roots, or too strong a stimulant, will cause the flowers to drop.

## ROSE GARDEN.

**PILLAR ROSES** (*J. C. M.*).—1. Yes, you can use two Roses to each pillar. 2. Some of the varieties you mention flower in the summer only. 3. Several of them are not hardy, even in the South of England. Obtain as many as you can on their own roots. You may not be able to get them all in this form. The following sorts (all mentioned by you) are good: Carmine Pillar (summer flowering only), Aimée Vibert, Climbing Caroline Testout, Reine Olga de Wurtemberg, Mme. Alfred Carrière, Dorothy Perkins (summer flowering only), Longworth Rambler, Jersey Beauty (summer only), and Climbing Belle Siebrecht. Grüss an Teplitz is a most valuable Rose, but not quite suitable for a high pillar. Others we should suggest are Crimeon Rambler (summer only), Félicité Perpétue, Flora, Alberio

Barbier (summer only), Climbing Captain Christy, Waltham Climber No. 1, Duchesse d'Auerstadt, and Mme. Bérard. In planting two to each pillar, be careful to arrange a good colour association.

**PRUNING ROSES** (*G. E. G.*).—As all your Roses are freshly planted, they will require hard pruning about the end of March. This will strengthen the plants by equalising the balance of growth between root and stem. In the list you send there are some very poor growers, notably Bridesmaid, Muriel Grahame, C. Mermet, G. Schwartz, Sunset, Perle de Feu, and Ethel Brownlow. We would advise you never to leave more than three shoots to any of these varieties, and these shoots should be cut back almost level with the ground; at any rate, you ought to prune them to within two or three eyes. By only allowing three shoots to a plant the sap will be concentrated, and better growth and flowers will result. The Hybrid Perpetuals and Hybrid Teas named in your list should be cut back to the fourth or fifth eye, and the remaining Tea-scented varieties should be cut back to the third or fourth eye. The climbers will not require such severe treatment, and may therefore be pruned to within 18 inches of the ground. Treat the wichuraianas in the same way. Next year, of course, many of the plants will require distinct treatment, and you will do well to procure the "Handbook on Pruning" issued by the National Rose Society. Read carefully the articles now appearing on this subject, and we do not think you will have much difficulty in learning how to prune.

**PRUNING CLIMBING ROSES** (*T. S.*).—As you are not anxious that your climbing Roses should flower this year, by all means prune them hard. Cut back the growths to within about 8 inches of the base; it is by far the best thing to do. By leaving the growths long you might, it is true, get a few blooms this year, but it is not worth while doing so, for if they are not cut down they may not throw up strong shoots from the base, which they should do. If you cut them down as advised, you will doubtless be rewarded with some good growths that will bloom well next year.

## FRUIT GARDEN.

**MANAGEMENT OF VINES** (*Young Beginner*).—We should have preferred to start the vinery with a night temperature of 50° rather than 60° for Foster's Seedling; 60° is too high as a first temperature for this variety. At closing time, which should be quite early in the afternoon on sunny days at this time of year, the thermometer may reach 70° without doing harm, whereas the same temperature induced by artificial means would be harmful. With this exception, we believe your treatment of the Vines, as set forth in your letter, to be exactly what is necessary.

**FRUITS FOR SCOTLAND** (*J. C. M.*).—Good cooking Apples are Alfriston, Bismarck, Duchess of Oldenburg, Cellini Pippin, Ecklinville Seedling, Lane's Prince Albert, and Wellington. Dessert varieties: Beauty of Bath, King of the Pippins, James Grieve, Ribston Pippin, Claygate Pearmain, and Christmas Pearmain. Pears for walls: Beurré Superfin, Doyenné du Comice, Fondante d'Automne, Josephine de Malines, and Marie Louise. For pyramids: Beurré Capiaumont, Williams' Bon Chrétien, Louise Bonne of Jersey, and Beurré d'Amanlis. Wall Plums: Comte d'Arthem's Gage, Denniston's Superb Gage, Kirke's, and Reine Claude de Bayay. Plums for pyramids: Early Prolific, and Victoria (cooking). Large-fruited Gooseberries: Crown Bob (red), Careless (white), Ocean (green), and Langley Beauty (yellow). Small-fruited Gooseberries: Green Gascoyne (green), Warrington (red), Golden Drop (yellow), and Whitesmith (white). Good Red Currants are Versailles and Ruby Castle. Good White Currants are White Transparent and White Datch. Boskoop's Giant is the best Black Currant. Plant Raspberry Superlative (red), and, if you want a yellow, plant The Guinea. Pyramids will develop into large trees 10 feet high, and

correspondingly broad under good culture. You will obtain good trees from the sources you mention.

**VINES DYING** (*G. T.*).—From all you say about your Vines we should think you left their renovation too late. You say they were "old canes in a very poor state of health and in poor soil." You did quite the proper thing in giving them fresh soil, removing the old and laying the roots in the fresh. You seem, however, to have used far too much artificial manure. With the Vines, and consequently the roots, in such a weak state we should have used no artificial manure at all in the soil. Some well-decayed farmyard manure mixed with the soil would have been much better. Probably the roots, weak as they were, were harmed rather than benefited by the artificial manure. But in any case the Vines were probably past renovating.

**PEACH-TREE FLOWERS FALLING** (*W. W.*).—You do not say whether the trees are out of doors or under glass, or what aspect the wall has. Had you done so, we could have helped you more. The probable reason is that the wood does not ripen properly, as you say you have given them plenty of water always. The roots may need pruning, especially as the trees are young. If the roots get into bad subsoil the shoots produced are soft and sappy, and never bear fruit satisfactorily. In the autumn, when nearly all the leaves have fallen, you should root-prune, a work which has often been explained in THE GARDEN. All you can do now is to protect the trees when in blossom if outdoors, and take care to keep the borders well supplied with water from flowering time onwards. Water well near the wall. If you will give us more particulars we may be able to help you further.

**PROTECTING FRUIT-BUDS FROM BIRDS** (*A. D. W.*).—In some districts a solution made of soot water has proved effectual: A peck of fresh soot is put into a coarse bag and soaked for twenty-four hours in two gallons of water; when the bag is removed 1 lb. of soft soap dissolved in two quarts of boiling water is added, together with one pint of petroleum in another utensil, to which is added enough fresh-slaked lime to soak it up, then that is added to the water and well stirred. As soon as clear this solution should be gently sprayed over the trees and be followed at once with fresh dry lime liberally dusted, or soot or Hellebore powder. This latter is poisonous. So much seems to depend on the voracity of the birds. In other districts free dustings with lime or soot in the evening have sufficed. In others nothing short of absolutely netting the trees and bushes over have saved them. Otherwise the free use of the shot-gun seems to be the only preventive.

**FRUIT TREES** (*Nest*).—Train Loganberries against the latticed fence, on the west side of the fence if you can, if not, on the east; protect the young growths in the spring. Three plants will be sufficient. Plant espalier Pears around the border edge of C and D near the pathway, keeping them about 18 inches away from the latter. Black Currants would do best in the shaded border G; Boskoop Giant is the best. Fill plots C and D with Gooseberries, E with Red Currants. We should recommend you to plant Raspberries on plots A and B, either side the summer-house No. 1, and to have Scarlet Runners on irregular plot F. Gooseberries ought to be planted 4 feet apart and Currants rather more. Raspberries ought to be 3 feet apart in the rows, and the rows 4 feet apart. The best Raspberry is Superlative; one of the best Red Currants is Versailles. Pears Marguerite Marillat, Michelmas Nelis, Fondante d'Automne, Beurré Superfin, Louise Bonne, Marie Louise, and Winter Nelis are suitable for training as espaliers.

**LEAVES ON VINE BORDER** (*W. Pratt*).—You might remove the leaves now, for the sun is gaining power, and atmospheric conditions are altogether more congenial, so

that the border will benefit rather than otherwise by their removal. We should remove them all at the same time. Fork the border lightly after doing so.

**FLIES IN FRASH HOUSE** (*Mrs. Scott Elliot*).—The best thing to do to get rid of the flies, which doubtless came in with the manure, is to use the XL All Vaporiser. By means of this a liquid is vaporised, and the vapour kills such insect life as flies. You can obtain the article and the liquid from nurserymen or horticultural sundriesmen.

### KITCHEN GARDEN.

**POTATOES SCABBED** (*Enquirer*).—We think from the description you give us of your Potato tubers being so scabbed that your soil is either very heavy or very much in want of drainage. You have done well in giving lime freely. If you cannot drain, we would advise a free use of road-scrappings from limestone roads, chalk, old mortar rubble, and burnt refuse. When planting the Potatoes in April, place lighter soil in the drills. Wood ashes, if obtainable, are useful for preventing scab; also charcoal refuse, if broken fine, is good. We would also advise change of seed. Avoid deep planting, and do not plant too closely.

**SEAKALE** (*T. Maloney*).—It would be impossible to get Seakale or Rhubarb sufficiently strong for forcing next year from seed in the time named. The root cutting you have may be cut into 6-inch lengths, cutting the top or crown portion of the root flat, the lower slanting or pointed. The soil should be deeply dug, heavily manured, and the sets placed in rows at least 2 feet apart, 12 inches between each set and below the ground level. This plant is a gross feeder, and well repays good culture. Your soil is suitable if double dug and well manured. Plants obtained from seed will take three years to make strong forcing roots, and they should be grown thinly in good land.

**BLANCHING CHICORY** (*E. H.*).—Properly to blanch this salad vegetable the crowns of the roots, when planted for the production of leaf-heads in a white condition, should be well covered with fine sifted soil or ashes, although soil is best, to a depth of 6 inches. Under such conditions the heads grow compact or close, as Seakale heads do under similar conditions. If not so covered with soil the leaves will spread. If old pot soil, sifted, be used, the Chicory leafage is quite clean. In some cases, for Chicory roots after being lifted and hard trimmed in the autumn, a trench in the open ground is opened 6 inches deep. Into this the roots are planted in two rows almost close together; the trench is then filled with fine soil, and a thick coat of long litter or manure laid over it. In a few weeks growth is sufficiently long for cutting, and opening at one end, after removing the litter, that work is easily done.

**FLORENCE FENNEL OR FINOCCHIO** (*L.*).—This Fennel (*Foeniculum dulce*) is an annual, a native of Italy. Vilmorin gives the following particulars of its culture: "The seed is usually sown in spring for a summer crop, and towards the end of summer for the late autumn crop in warm countries. It is sown in rows 16 inches to 20 inches apart. All the attention required is to thin out the seedlings so as to have them 5 inches or 6 inches apart, and to water the plants as often and as plentifully as possible. When the head or enlargement of the leaf stalks at the base of the stem has attained about the size of a hen's egg, it may be slightly earthed up so as to cover half of it, and in about ten days afterwards cutting for use may be commenced with the most forward plant, and continued as each plant advances in growth. The plant is usually eaten boiled, the flavour of it somewhat resembles Celery, but with a sweet taste and a more delicate odour. Up to the present time it is not much used in France, but it deserves to be more extensively cultivated." Another Fennel (*Foeniculum officinale*) is the famous Carosella, so extensively used in Naples, and scarcely known in any other place. The plant is used while in the act of running to bloom. The stems are broken and served up raw, and are esteemed a great delicacy. We have no

experience of the culture of either of these in England; if any of our correspondents have we should be very glad to hear from them.

**J. T.**—In favoured localities and where the soil is of a warm, genial nature, a small plot may be prepared for sowing seed of Early Milan or the old white Dutch Turnip. Both of these are reliable for early work, and they seldom run to seed. We would advise sowing both varieties, as Early Milan does its work in a little less time than the Dutch, the latter forming a good succession and remaining in excellent condition for a considerable time. In Midland and Northern districts it is advisable to wait till the first week in April before making this sowing, and even in warm counties raised beds and extra sheltered borders are necessary. Guano or powdered fowls' manure placed on the surface of the bed after the seedlings are thinned out helps to forward the crop, these being of a heating nature. A few Yew boughs placed here and there about the bed as soon as there are signs of germination form a good shelter and hasten growth. Protect from birds, or the crop is doomed.

### MISCELLANEOUS.

**ARTIFICIAL FLOWER-COLOURING** (*M. Smith*).—The artificial colouring of flowers is effected by standing the newly-out stems into one of the aniline dyes of the tint required. The colouring matter is absorbed by the stem and distributed throughout the flowers.

**SALTS OF AMMONIA** (*J. D.*).—What you so term is but sulphate of ammonia under another name. This is a salt of a very nitrogenous nature, and is a product in the making of gas. It can be obtained from gas-works and used among growing crops, by sowing it very thinly among them at the rate of about 8 lb. to 4 lb. per rod area. The salt should be first finely crushed. It dissolves almost immediately it is put on the soil, and hoed or lightly forked in. Ammonia is a gaseous compound really, the product of decaying or fermenting manures, and easily distinguished by its obnoxious smell. With all manures, especially animal, so long as they are kept from fermenting there is no waste of ammonia. Thus, in preparing manure for a hot-bed, by frequent turning the fermentation is prevented, and the ammonia is fixed and not wasted. Sulphate of ammonia is about 28 per ton.

**SULPHATE OF POTASH FOR GRASS** (*E. H.*).—This manure when pure is a highly-concentrated form of kailnit, and most valuable as a manure for all forms of vegetation which have to form wood or seeds or fruits or roots, but is of less value for grass, which does neither in the sense indicated, but merely produces fine leafage. You would probably find better results follow from a dressing of a bushel per rod of the sewage product known as native guano. Besides furnishing grit it also provides nitrogen in moderation, and we have seen excellent results follow such a dressing. We fear no manure applications will correct the moss trouble on those portions of your lawn the soil of which is very wet and shaded. Drainage is there badly needed.

**BURNING CLAY** (*F. M. B.*).—There are two methods of burning clay to make ballast, but everything depends upon the burning, as, though a simple matter, it becomes a costly one if the clay is not properly burnt. It would be advisable to get the assistance of someone who has had some previous knowledge. With plenty of wood at command you may obtain good results by getting a good body together. Commence burning at one end; the clods of clay are built in walls, and the logs inside this must be dry to get a good heat at the start. Gradually, as the fire progresses, the clods are built over the fire, and this continues as the wood is added, and then the clods, the latter in sufficient solidity to maintain a body of heat to permeate the whole mass. As the work proceeds the ballast will cool at the starting-point, and soon be ready for use. The chief points are to give enough fire and to place sufficient clay to prevent its burning through, thus needing almost daily attention.

**DUTIES OF A HEAD-GARDENER** (*S. W.*).—Very much depends on circumstances in dividing up the work of the head-gardener and the second and the third man, as scarcely two places can be worked alike and under the same conditions. The organising of the whole of the work should be done by the head-gardener, and in a place of such size a fair share of the work should be done by him, which would include pruning, seed sowing, potting of the principal plants, and a turn on Sundays. The second man should work as much as possible with the head, so that during his absence he would be able to take charge; he should attend to the sowing, watering, and syringing, and be responsible for the fires, filling up his time about the garden wherever required, doing his fair share of Sunday work. The third hand should be principally employed during all fine weather in the outside departments, such as digging, mowing, and keeping the place tidy generally, as well as serving the kitchen. If he is a young man and anxious to become an efficient gardener he will not object to take every other week with the fires at night, and give occasional help with the glass on Sundays.

**NAMES OF PLANTS**.—*A. N.*—1, *Impatiens Sultan*; 2, *Trachelospermum jasminoides*; 3, *Brunfelsia calycina*; 4, *Chlorophytum elatum* var. *variegatum*; 5, *Arundinaria Fortunei* (*Bambusa Fortunei variegata*).—*W. G. H.*—1, *Bougainvillea spectabilis*; 2, *Hibiscus syriacus*; 3, *Cotoneaster microphylla*; 4, *Ceanothus dentatus*; 5, *Calanthe Veitchii*; 6, *Calogyne cristata*; 7, *Laila anceps*; 8, *Acacia dealbata*.—*E. T. England*.—*Narcissus minimus*.—*H. J. A.*—*Alouca Warscewiczii*.—*Nota*.—The Snowdrops were much shrivelled, but we believe them to be *Leucojum vernum* var. *carpathicum*.—*J. Siddall*.—*Odontoglossum crispum*.

### LEGAL POINTS.

**GARDEN CROPS** (*One in Doubt*).—There seems to be no reason why you should not hoe up the garden, but you must not remove shrubs, Box borders, &c.

**RIGHT TO LET WALL FOR ADVERTISING PURPOSES** (*Lebanon*).—The clause in your lease appears to preclude you from letting the wall as you suggest unless you can obtain your landlord's consent.

**NUISANCE CAUSED BY BEES** (*A Constant Reader*).—We know of no case in which an injunction has been granted to restrain an adjoining owner from causing a nuisance to his neighbour by keeping bees, but on principle we think you would be successful in obtaining an injunction and compensation for any damage caused by the bees. The maxim is, *Sic utere tuo ut alienum non laedas* (Make use of your own property in such a manner as not to injure that of another). It has, however, been doubted whether an action can be brought in the case of animals, &c., which could not be the subjects of a charge of larceny, such as rabbits and presumably bees, but our opinion is as above stated. You had better instruct a solicitor to write to your neighbour threatening him with an action if the nuisance continues.

**COMPENSATION FOR INJURIES** (*Ignoramus*).—A gardener, or a groom who is also employed as a gardener, can claim compensation from his master under the Workmen's Compensation Act for injuries caused by accident which happen in the course of his employment. It is immaterial that the accident was not caused by the master's negligence, but it must not have been caused by the serious and wilful misconduct of the servant, who must have been disabled for at least two weeks from earning full wages. Notice of the accident must be given to the employer as soon as practicable, and before the servant voluntarily leaves his master's service, but the want of the notice will not bar the servant's claim if it is found that the employer has not been prejudiced, and that the notice was not given owing to a mistake or other reasonable cause. The claim must be made within six months. For further information and form of notice see "Law for the Million" (Simpkin, Marshall, and Co.), second edition, page 188. If the accident is serious and you cannot come to a settlement consult a local solicitor.

**GOODS DAMAGED BY RAILWAY COMPANY** (*Charterhouse*).—When a railway company carry goods at "owner's risk," they almost invariably charge a reduced rate and protect themselves from all responsibility except in respect of damage caused by the wilful misconduct of their servants. In the case of such a contract, which must be signed by the consignor or his agent, the owner of the goods cannot obtain compensation if they are damaged, unless he can prove that the company's servants have been guilty of wilful misconduct, i.e., there must be the doing of something which the person doing it knows will cause risk or injury, or the doing of an unusual thing with reference to the matter in hand, either in spite of warning or without care, regardless whether it will or will not cause injury to the goods carried or other subject matter of the transaction. The company must, however, prove that there was an ordinary rate of which the consignor might have availed himself, and that this was brought to his notice. You should examine the consignment note and satisfy yourself as to the conditions printed upon it, but we are doubtful if you have any claim against the company. You may, however, have a claim against the firm from whom you purchased the articles for negligence in consigning them at "owner's risk" without your consent. The goods seem to have been securely packed.

## SOCIETIES.

## ROYAL HORTICULTURAL SOCIETY.

There was a very good display at the meeting of the Royal Horticultural Society on Tuesday last, the 20th inst. Hardy flowers, alpine, and Narcissal were chiefly shown.

## ORCHID COMMITTEE.

Present: Mr. J. Garney Fowler (chairman), Messrs. James O'Brien, Harry J. Veitch, H. Little, W. Boxall, W. H. Young, H. A. Tracy, H. G. Alexander, F. J. Thorne, H. J. Chapman, Jeremiah Colman, J. Wilson Potter, A. A. McBean, J. W. O'Leary, H. G. Morris, T. W. Bond, W. H. White, Arthur Dye, H. T. Pitt, R. G. Thwaites, Walter Cobb, G. F. Moore, F. Monteith Ogilvie, Francis Wellesley, W. A. Blaney, Norman C. Cookson, de B. Crawshaw, A. A. Peeters, H. Ballantine, and F. Sander.

Baron Schröder, The Dell, Egham (gardener, Mr. Ballantine), exhibited a large and beautiful display of Orchids in great variety. It consisted largely of Dendrobiums, the plants being full of bloom, some of the finest of which were *D. findlayianum*, *D. nobile virginale*, *D. Edithae*, *D. Sandersi*, *D. Cybele*, *D. aureum philippinense*, *D. nobile virginale*, and *D. splendens*. In the centre of the group were various *Cattleyas*, together with *Odontoglossum Pescatorei*, *Schroderianum* and some splendid racemes of *O. crispum*, *Eulophiella Elizabethae*, and several rare *Cypripediums*. Other interesting features were out racemes of the handsome *Calanthe Baron Schröder* var. *palida* and a plant of *Dendrobium superbum* Burkel. Silver-gilt Flora medal.

Messrs. Charlesworth and Co., Bradford, showed some beautiful Orchids in their group. The *Laelo-Cattleyas* were well represented, especially fine being *L.-C. dominiana*, *L.-C. Myra*, and *L.-C. welliana*. *Cattleyas* Enid and Mendell Daches of York, *Miltonia bleiana grandiflora* (finely in flower), *Oncidium oncolor*, and various *Odontoglossums* and *Phaius* were also included in this representative display. Silver-gilt Flora medal.

Messrs. Hugh Low and Co., Enfield, exhibited a pretty lot of Dendrobiums. One plant of *D. wardianum* carried 140 flowers, and *D. devonianum* was excellently shown. *Lycaste Skinneri*, *Cypripediums*, *Cattleya schilleriana* and *C. Trianae* Mrs. G. Sondheim, *Dendrobium wardianum* ochroleucum, and *D. nobile album* were other noteworthy Orchids. Silver Banksian medal.

In the group set up by Mr. J. Cypher, Cheltenham, *Odontoglossum Adrianae punctata* was very fine. *Sophranitis grandiflora* and *Oncidium oncolor* made brilliant bits of colour, and there were Dendrobiums and *Cypripediums* in variety. *Cattleya calumetata* magnifica and *C. intermedia* alba were also shown. Silver Flora medal.

*Cypripediums* were largely shown by Messrs. Sander and Sons, St. Albans. Among them were *C. Prewittii*, *C. Calypso rubens*, *C. aureum mellona*, *C. villosum* Golden King, and *C. v. annanense*. *Zygopetalum gottianum* magnificum, with rich red-brown sepals and petals, and violet lip tinged with rose, was very handsome. Other good Orchids were, *L.-C. Empress of Russia*, *L.-C. callistoglossa*, *L.-C. blethyleyensis*, and *Dendrobium nobile virginale*. Silver Banksian medal.

Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne (gardener, Mr. Chapman), exhibited several beautiful *Odontoglossums* and other Orchids.

Major Holford, C.I.E., Tetbury, Gloucestershire (Orchid grower, Mr. Alexander), showed *Odontoglossum crispum* carrying a splendid raceme with seventeen large blooms. Cultural commendation.

J. Bradshaw, Esq., The Grange, Southgate (gardener, Mr. Whitelegg), showed some beautiful forms of *Lycaste Skinneri*.

M. L. J. Draps-Dom, Lsken, Brussels, exhibited a small group of Orchids that contained some beautiful varieties of *Odontoglossum crispum* and several hybrid *Cypripediums*. F. Wellesley, Esq., Woking (gardener, Mr. Hopkins), exhibited several *Cypripediums* and *Cattleya* Mrs. Frederick Knollys (*Mossae* x *hardyana*).

Messrs. Linden and Co., Brussels, exhibited several hybrid *Cypripediums* and *Odontoglossums*.

The first diploma for a variety of *Lycaste Skinneri* was awarded to L. S. Beauty, exhibited by J. Bradshaw, Esq., The Grange, Southgate. No second diploma was awarded.

## NEW ORCHIDS.

*Odontoglossum lambeauianum roseum*.—This is a very showy flower, heavily marked with rose-red; the ends of sepals and petals are rose. It is the result of a cross between *Rolfes ardentissimum* x *crispum* Mms. Valcke. Exhibited by M. A. A. Peeters, Brussels. First-class certificate.

*Cypripedium aureum hyeanum*.—This was obtained by intercrossing *C. Sillieri hyeanum* x *C. spicerianum* var.; the influence of the latter is shown in the dorsal sepal, which is white in the upper half, the lower part being green with purple-brown lines; petals are green and brown; the lip is red-brown. From F. Monteith Ogilvie, The Shrubbery, Oxford. Award of merit.

*Cypripedium villosum The Premier*.—A very handsome form of *C. villosum*; the dorsal sepal is purplish brown surrounded by green, which fades into primrose-yellow and then white. This gradation of colour is very effective. Petals and pouch are shining greenish brown. Shown by F. Wellesley, Esq. Award of merit.

*Laelo-Cattleya Sunray superba*.—A striking flower of rich and brilliant colouring. The sepals and petals are rich apricot coloured, while the lip is purple with golden throat. Shown by Messrs. Charlesworth and Co., Bradford. Award of merit.

## FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Drury, G. Nicholson, R. Wilson Ker, T. W. Turner,

J. Green, C. J. Salter, C. E. Felder, H. J. Catbush, J. F. McLeod, J. Jennings, W. Howe, W. P. Thomson, Charles J. Jeffries, Charles D. Cox, James Douglas, J. Gordon, Charles E. Shea, W. Cuthbertson, C. E. Pearson, W. J. James, C. Bilck, and E. Hooper Pearson.

In the collection from Messrs. W. Catbush and Sons, Highgate, who had a very pleasing arrangement of rock plants and shrubs, *Androsace carnea* was grouped in a charming way. A very striking plant is the Himalayan *Erysimum pachycarpum* with orange flowers, and regarded as a true perennial. *Iris susiana* was a big feature and in fine condition. *Shortia*, *Hepaticas*, and many choice *Irises* were included in this excellent exhibit. Silver-gilt Banksian medal.

Messrs. W. Paul and Son, Waltham Cross, brought the ever-pleasing white and yellow Banksian *Roses* teeming with graceful sprays of blossoms, the white being deliciously fragrant. Bronze Flora medal.

Messrs. Jarman and Co., Chard, Somerset, showed *Cactus-flowered Cinerarias* in variety.

Mr. G. Renth, Keston, Kent, had a most interesting lot of Saxifrage that included many of the choicest kinds, and such hybrids as *S. Elizabethae*, *S. Solomonii*, and others. *S. scardica* (white), *S. Frederica Coburgii* (yellow, very rare), and many more, *Orocus* species, with *Narcissus* and other plants, made a very interesting display. Silver Banksian medal.

Messrs. E. Wallace and Co., Colchester, showed hardy plants in variety, and here we noted *Primula purpurea* from Kashmir (a most interesting plant) many *Irises*, *Fuschia* *solida* (very fine), and a good lot of *Anemone Pulsatilla*, with silken downy foliage and buds.

Mr. H. C. Pulham, Epsenham, Essex, showed alpine in boxes, together with rock shrubs, &c.

A very interesting lot of alpine came from E. A. Hambro, Esq., Hayes Place, Kent, generally well grown in pans. The group included many choice kinds, and of Saxifrage alone there was quite a collection. *S. Byrdii* was very fine. There were also *Sedums*, *Cobweb House-leeks*, bulbous plants, and shrubs, with *Primula* species and *Auriculas*.

A showy table of *Thysanacanthus rutifolius* came from Lord Aldenham, Epsenham, Herts (gardener, Mr. Beckett). The pendant racemes of scarlet crimson flowers, in their great profusion above a setting of Maidenhair Ferns, made quite a feature. A collection of cut *Willows* (*Salix*) came from the same exhibitor. Silver Flora medal.

The Guildford Hardy Plant Nursery contributed a small yet neat and choice assortment of alpine, in which the dainty *Isoetes*, *thalictroides* and the equally dainty *Thalictrois anemoneoides* were noted.

Sir Edmund Loder, Bart., Horsham, had a few cut *Camellias* and *Rhododendrons*, with alpine in bunches.

Messrs. R. Smith and Co., Worcester, had some two dozen plants of *Hepatica angulosa* *illacina*, a pretty variety of a well-known plant.

Mr. W. E. Boyes, Leicester, had a few *Carnations* in the cut state.

Messrs. J. Cheal and Sons, Crawley, showed alpine in boxes, together with many forms of *Primroses* and the rather uncommon green-flowered variety.

Messrs. Gilbert and Son, Bourne, Lincolnshire, had a brilliant display of *Anemone fulgens annulata*, together with a large array of *Anemone Pulsatilla* in the cut state. Silver-gilt Flora medal.

Messrs. Frank Cant and Co., Colchester, showed a few delightful *Roses* in the cut state, in which some giant blooms of Mrs. Edward Mawley were noted. Lady Roberts, Mrs. Conway Jones, Pappe Gontier (beautiful in bud and colour), *Pease* (cream), and *Eugenie Lamesch* were all charmingly shown.

Messrs. J. Reed and Sons, West Norwood, again showed alpine in boxes, together with many pots of *Freesia*.

Messrs. E. and G. Cuthbert, Southgate, staged a large and showy group of forced shrubs, in which the rich and varying colour tones of the *Asaleas* made a most sumptuous display. The *Magnolias*, too, were very fine. Silver-gilt Flora medal.

A similar group of forced shrubs came from Messrs. Catbush and Sons, Highgate, and here, in addition to *Asaleas* and other plants, *Laburnums*, *Wisterias*, *Gaulther* *Roses*, and other things were freely employed. *Laburnum Alkegengi* is remarkable for its very long racemes of yellow flowers.

An exhibit of pottery came from D. Dowel and Son, Ravenscourt Avenue, Hammersmith.

Messrs. T. Cripps and Son, Tunbridge Wells, contributed a very charming lot of *Acers* in pots, quite a representative collection being shown of the better kinds. One of the most beautiful and distinct is *A. pictum aureum*, a new variety that colours perfectly in the open air.

Mr. L. E. Russell, Richmond, Surrey, showed a magnificent group of forced shrubs and cut *Tree Carnations*, together with a large collection of hardy plants, mostly in small pots. Cut *Narcissal* were also shown. Silver Flora medal.

An interesting assortment of succulent plants came from C. E. Pillans, Esq., Agricultural Department, Cape Colony. Silver Flora medal.

Messrs. Hugh Low and Co., Enfield, contributed a good lot of cut *Roses*, as Captain Hayward, Caroline Testout, Mrs. Grant, and others. The same firm staged a nice lot of *Carnations* of the American Tree section. Silver-gilt Banksian medal.

Tree *Carnations* were well shown by Mr. S. Mortimer, Farnham, Surrey, some dozen or more of the usual kinds being staged. Many vases of the perpetual-flowering *Stock* All the Year Round were shown.

Messrs. Veitch and Sons, Limited, Chelsea, showed *Rhododendrons* in several kinds, as Countess of Haddington and others, also *Clivias*, *Crowea angustifolia*, and the white *Kalanchoe Dyeri*. Silver Banksian medal.

Very effective were the *Pelargoniums* and *Cinerarias* shown by Messrs. Cannell and Sons. Silver Flora medal. Mr. H. B. May, Eimonton, contributed a fine table of *Clematises* in flower in small pots in the leading kinds. The new hybrid *Pelargonium Clorinda* was also shown in flower. *Roses* of the *Polyantha* group were also shown, together with *Gardenias* in pots. Silver Banksian medal.

A collection of *Acacias* came from Messrs. Hugh Low and Co., Enfield, standard and bush plants of many kinds being staged.

## NEW PLANTS.

*Rose (Polyantha) Princess Ena*, a very pleasing tone of deep rose, is a very useful free-flowering plant. From Mr. H. B. May, Eimonton. Award of merit.

*Rose Climbing Frau Karl Druschki*.—Little need be said of this novelty beyond the fact that it is all that the name conveys, and as such will make a most valuable addition to climbing garden *Roses*. From Messrs. W. Laurensen and Son, Eggescliffe, Yarm-on-Tees. Award of merit.

*Carnation Britannia*.—Perhaps the finest scarlet *Carnation* of the season, and bearing the indisputable evidence of British origin. With good calyx and large, but not very full blossoms, it is an almost ideal *Carnation*. From Mr. A. Smith, The Nursery, Enfield Highway. Award of merit.

## NARCISSUS COMMITTEE.

Present: Mr. H. B. May (chairman), Messrs. W. Foutpart, John Pope, E. A. Bowles, G. Reuthe, Jean de Graaff, Alex. M. Wilson, Charles T. Digby, P. Rudolph Barr, J. T. Bennett-Poë, W. F. M. Copeland, Arthur R. Goodwin, W. A. Milner, E. W. Wollans, Walter T. Ware, A. Kingsmill, James Walker, Robert Sydenham, H. B. Young, P. D. Williams, the Rev. S. Eugene Bourne, George H. Engleheart, Joseph Jacob, Canon Fowler, and C. H. Curtis (hon. secretary).

At this, the first sitting of the Narcissus committee of the present season, several collections were submitted. In a large and representative group from Messrs. Barr and Sons, Covent Garden, many good kinds were seen. Old standard varieties in plenty, and such novelties as King Alfred, Sunshine, Henri Vilmorin (white Ajax), Beatrice Barlow (another white Ajax), Isolde (very fine, a glorified *Mme. de Graaff*, *Eldorado* (rich gold), and *Seraph* (a fine bicolor), were some of the gems of this select lot. Silver Banksian medal.

Sir Joselyn Gore-Booth, Bart., Sligo, sent a small assortment of *Daffodils*, in which *Seagull*, *Victoria*, *Golden Bell*, *Mme. de Graaff* (very fine), *Oridama* (a richly crowned *Barbidge*), *C. J. Brookhouse*, *Minnie Hume*, and others were shown in good condition.

*Narcissus* Sir James Drake, grown in the open, came from Mr. Kendall, Newton Popham, near Ottery St. Mary, Devon. It is a noble self-coloured yellow Ajax.

A very beautiful lot of choice and new *Narcissal* came from Mr. Charles Dawson, Gylvan, Penzance, such as *White Friar*, *Goldseeker*, *Kittiwake*, *Incognito*, *Cachalot*, *Giltana* (a lovely flower, yellow, with brilliant flat red crown), and *Vivandiere* (a *Poet's* *Narcissus*, with immense flatish crown, heavily bordered vermilion-orange, with yellow base. Silver-gilt Banksian medal).

*Narcissus Alma* (in some respects a pale *maximus*) and *Firebrand* came from the Rev. G. H. Engleheart; and a rather distinct bicolor, *L'Avenir*, from Messrs. W. Manger and Son, Guernsey. N. Baylor Hartland, from its raiser, was not seen in a condition to judge of its merits.

## FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. J. Cheal, W. Bates, S. Mortimer, A. Dean, George Kelf, H. Parr, A. R. Allan, Edwin Beckett, Joseph Davis, John Lyne, F. Q. Lane, G. Reynolds, C. Foster, Owen Thomas, H. Somers Rivers, and A. H. Pearson.

Messrs. T. Rivers and Son, Sawbridgeworth, Herts, exhibited an interesting collection of *Orange* and *Lemon* trees in pots and out fruits. Numerous varieties were represented, and some of the trees bore good crops of fruit. The *Myrtle-leaved* is a pretty plant with small, dark green, *Myrtle*-like leaves and round fruits. The *Long Orange*, *Seville*, *Malta Oval*, *Malta Blood*, *Citrus corniculata*, *Egg Orange*, *St. Michael's*, and others were shown. The *Bijou Lemon*, *White Lemon*, *Sweet Lime*, *Citron*, and *Shaddock* added variety to this interesting exhibit. Silver-gilt Banksian medal.

The King's Acre Nursery Company, Hereford, exhibited a collection of *Apples* that were finely coloured and in good condition. *Gascogne's Scarlet Seedling*, *Lane's Prince Albert*, *Newton Wonder*, *Adam's Pearmain*, *Chatley's Kernel*, *Bowhill Pippin*, *Sandringham*, *Wellington*, *Hormead's Pearmain*, and *Brownlee's Russet* were some of the best. Silver-gilt Knightian medal.

Mr. Philip Le Cornu, Guernsey, exhibited *Apple Jersey Beauty*.

Sir E. Loder, Bart., Leonardlee, Horsham (gardener, Mr. W. A. Cook), showed *Broccoli Carter's Spring White*. Cultural commendation.

Messrs. Champion and Co., 115, City Road, exhibited their handsome ornamental tubs for shrubs, and Messrs. Green and Nephew, Queen Victoria Street, E.C., showed the *Munstead* flower vases.

## GUILDFORD &amp; DISTRICT GARDENERS' ASSOCIATION.

The Guildford gardeners held their usual fortnightly meeting on Tuesday, the 6th inst., the president of the society (F. F. Smallpiece, Esq.) being in the chair, supported by Mr. B. Cook and Mr. W. Edwards. A paper was read by Mr. G. Mowbray, Fulmer Gardens, Slough, on "Gardenias, *Freelias*, and *Mignone*." A good discussion followed, being well sustained by Messrs. J. Gostley, W. Foreman, H. Vinal, P. Bullen, F. W. Wise, and other members. Nine new members were enrolled.



# CRAWLEY & DISTRICT GARDENERS' ASSOCIATION. REPORT FOR 1905-6.

In submitting the second annual report and balance sheet, the committee desire to express their thanks to the president, patronesses, vice-presidents, members, and friends, who have shown such interest in the association, and so helped us to accomplish the objects for which the association was founded. The funds continue to be in a satisfactory condition, and we are able to report a balance in hand, although our expenditure has been somewhat heavier. During the year we have lost several members through leaving the district; but it gives us great pleasure to be able to report a net increase of twenty-seven ordinary and twelve honorary members, which brings our total to 160. Fifteen lectures, &c., have been given before the association on subjects appertaining to horticulture, and much useful knowledge has been obtained by our members thereby. We are glad to report that we were again able to hand over the sum of five guineas to the Crawley and Ifield Cottage Hospital from the proceeds taken by admission from non-members. Medals have also been given by the association for the best-kept gardens and the best essays (by under-gardeners) on the growing of Apples and Pears. The judges' remarks on the gardens were that each one visited was good, being scrupulously clean and in a high state of cultivation, while the essays were extremely well written, and did credit to the young men who wrote them. The committee trust to be able to announce further subjects for next winter's season.

# CROYDON AND DISTRICT GARDENERS' SOCIETY.

DISCUSSIONS on various subjects in horticulture formed the nucleus of the programme at the last meeting. In each session one evening is set apart for these friendly discussions, and always proves interesting and instructive to the members attending. Mr. F. Moore, Stanley Grove, Croydon, kindly brought his microscope, and mounted specimens of insect pests for the members to examine. The exhibits displayed were very fine. Mr. A. May, gardener to Mr. T. Wagner, Shirley Lodge, Cooombe Road, staged a well-grown specimen of *Dendrobium wardianum*, bearing over a hundred flowers. From the president's garden (Mr. J. J. Reid, Cooombe Lodge) Mr. Oxboby brought *Cinerarias*, which were much admired, as was also a collection of *Narcissus*, grown in moss fibre, by Mr. W. Paulley, gardener to Dr. Jackson, Thornton Heath. Mr. W. Bentley, gardener to Mr. G. Curling, Mgin House, Addiscombe, staged *Primula obconica*, showing good colour and size of bloom, and Mr. A. Edwards, gardener to Mr. J. Pascall, Ambleside, Addiscombe, put up a dish of *Parasitica*. Most of the exhibits were in competition for the society's certificates. A very ingenious exhibit came from Mr. T. Brown, gardener to the Croydon Hospital, by way of an improved pot cleaner, which for easy use and dexterity highly recommends itself for the purpose required.

# BRISTOL & DISTRICT GARDENERS' ASSOCIATION.

A WELL-ATTENDED meeting of this association was held at St. John's Rooms, Redland, recently, Mr. James Lee presiding. The lecturer for the evening was Mr. Farmer, head-gardener, Cardiff Castle, who took for his subject "Floral Decorations for a Private Establishment," and it was quite evident he was master of this important branch of horticulture. He dealt minutely with table decorations, the use of plants for rooms, halls, &c., and advised his hearers to study carefully the rooms to be decorated, blending colours so as to adapt themselves to the colour of the rooms, and using flowers which lend themselves effectively. A hearty vote of thanks terminated a most enjoyable evening. Prizes were awarded for three foliage plants, the successful competitors being Mr. S. White (gardener, Mr. Bruce), Mr. Francis Tagart (gardener, Mr. Binfield), and Mr. W. H. Davis, M.P. (gardener, Mr. Curtis), certificates of merit going to Mr. W. H. Davis (gardener, Mr. Curtis) for a double-flowered *Cyclamen*, and to Mr. A. Baker (gardener, Mr. Orchard) for a choice *Rhubarb*.

# THE NORTH DEVON AMATEUR SPRING BULB SHOW.

THIS society held its second annual exhibition at the Drill Hall, Bideford, on the 7th inst.; it was in every respect an unqualified success. The entries numbered 300, being 100 in excess of last year, which fact must be very gratifying to the energetic hon. sec., Miss Farrington. The greatest improvement, however, was shown in the quality of the exhibits. The majority of the pots contained well-grown, sturdy plants, while the weak and bleached foliage, so conspicuous last year, was almost entirely absent.

Especially noticeable among many good things were Mrs. Hobhouse's six trumpet *Daffodils*, grown in moss fibre—Golden Spur, Empress, Mrs. Thompson, Victoria, Princess, and Albicans. These were a mass of bloom, containing over 100 fully-developed flowers, size and quality leaving nothing to be desired, while the foliage was perfect. The best pot of *Daffodils* in the show, and which deservedly won the silver medal presented by Mr. Robert Sydenham, was, however, found in a second prize lot grown by Miss Farrington, and which had twenty splendid flowers of Sir Watkin. The whole pot was as sturdy as if grown in the open and in the most congenial soil. This shows what can be done with moss fibre. The same exhibitor had a charming trio of *Medio-Coronati*—Sir Watkin, Barri conspicuus, and Duchess of Westminster—which were awarded first in a very strong class.

The bowls of cut *Daffodils* and table decorations showed no great originality, the exhibitors perhaps finding their

efforts dwarfed by having to use *Daffodil* foliage only. The *Tulips* were good, but some pots showed excessive forcing.

The judges were the Rev. J. Buncombe and J. H. O. Pease, Esq., while Mrs. Moore-Stevens judged the table decorations.

# PRIZE LIST.

Six pots of *Daffodils* grown in moss fibre: First, Mrs. Hobhouse. Three pots of trumpet *Daffodils*: First, Mrs. Hobhouse. Three pots of *Medio-Coronati*: First, Miss Farrington. Three pots of *Parvi*: First, Mrs. Hobhouse. Three pots of *Polyanthus*: First, Miss Farrington. Three pots of *Tulips*: First, Mrs. Hobhouse. Four pots of *Hyalanthus*: First, Miss Harding. Three pots of spring flowers: First, Miss Vidal. Table decoration: First, Miss Beraford. Bowl of cut *Daffodils*: First, Miss Halton.

# THE NATIONAL AMATEUR GARDENERS' ASSOCIATION.

THIS excellent organisation has just issued its annual report and balance sheet, together with an interesting little publication containing the constitution, bye-laws, and rules, with syllabus of lectures, &c., and list of special prizes for 1906. It is really astonishing what the association accomplishes for its small annual subscription of 5s., seeing that more than three-fifths of the sum received on account of subscriptions is paid away for rent of halls for the monthly meetings and exhibitions. For the present year lectures are to be given on a variety of subjects, among which may be mentioned "Alpine Plants," by Mr. A. Boulton; "Tomatoes and Cucumbers," by Mr. W. Dyke; "Cactus Dahlias," by Mr. J. B. Eiding; "Carnations," by Mr. A. J. Bowberry; "Violas," by Mr. D. B. Crane; "Fern Wonders," by Mr. G. T. Drury; "The Bacteria of the Soil," by Mr. J. F. H. Gilbard, F.I.C., F.C.S., and "Beautiful Gardens," by the president. At each monthly meeting an exhibition of the products of the members' gardens is held, and is often very interesting and instructive. A conversazione is held at the July meeting, on which occasion the best display of the year of flowers, &c., is made. Visits to well-known gardens and nurseries take place at intervals throughout the spring, summer, and autumn months, Saturday afternoons being given up for this purpose. There is a small but valuable library for members to draw upon, which enhances the value of the association to amateur gardeners. The monthly meetings take place on the first Tuesday in each month, at seven o'clock in the evening, at Winchester House, Old Broad Street, London, E.C. Mr. R. Cordwell, 85, Medusa Road, Catford, S.E., is the hon. secretary, who will be pleased to give particulars to those desiring them.

# SHREWSBURY FLORAL FETE.

At the annual meeting of the Shropshire Horticultural Society, held recently, the committee had another marvellous year's record to add to their already remarkable list. The total receipts from the great floral fete in The Quarry this year reached £5,238 6s. 11d.—a record, the highest sum taken hitherto being £5,001 in 1902. The Mayor (Councillor R. E. Jones) was voted to the chair, and there were the usual familiar faces present. Mr. W. W. Naunton, who, with Mr. H. W. Adnitt, is still at the helm as hon. secretary, read the report. It stated that the first day of the summer show in August proved very wet, and there was a falling off in the amount taken at the gates. The second day fully made up for it, and resulted in the highest amount taken in a period of thirty-one years, the total receipts from all sources amounting to the large sum of £5,238 6s. 11d. against those of 1902, hitherto the largest—£5,001 15s. 6d. The following figures in explanation are interesting: Subscriptions, 1905, £507 9s., against £433 18s. in 1902; cheap tickets, £539 18s. 2d., against £428 11s. 4d.; first day gates, £273 7s. 4d., against £1,004 16s. 3d.; second day gates, £2,229 18s. 3d., against £1,918 5s.; sundry receipts, including interest, £1,148 1s. 2d., against £1,216 4s. 10d. The displays of horticultural exhibits generally at this show, the committee had no hesitation in stating, were undoubtedly of the highest standard all round. The entries received in the different classes reached nearly 8,000, 200 in excess of any previous year. The society enjoys the happy position of always having made a profit, and never once a loss, since its formation in 1875.

# OBITUARY.

# JAMES ALLEN.

It is with regret that I announce the death of Mr. James Allen, Highfield, Shepton Mallet, which took place there on the 8th inst. Mr. Allen was long a contributor to THE GARDEN under the pen name of "Jay Ave." At the Snowdrop conference of the Royal Horticultural Society in 1891 Mr. Allen's paper created much interest. I have some of Mr. Allen's seedling Snowdrops, and great beauties most of them are. Besides the Snowdrops, Mr. Allen took delight in many other bulbous and tuberous flowers. Some of us know the beauty of *Anemone nemorosa* Alleni, although so far only a few know that of A. n. Romance and others of his seedlings. *Scillas* also claimed his attention, and he raised some lovely pink and white forms of *S. bifolia*.

He also worked among the Croci, Snowflakes, and Narcissi. The *Chionodoxa* may be called his creation, although also raised independently. Mr. Allen, who had reached an advanced age, had been an invalid for a long time, but, shortly before he became worse, had the happiness of celebrating his golden wedding. S. A.

# THOMAS K. NEWBIGGING.

It is with regret that we have to intimate the death, on the morning of the 14th inst., of Mr. Thomas Kennedy Newbigging, the head of the firm of Messrs. Thomas Kennedy and Co., nurserymen and seedsmen, High Street, Dumfries. It is less than a year since we had to include among our obituary notices the death of his younger brother and partner, Mr. John Newbigging. With his brother Mr. T. K. Newbigging succeeded to the business, and since then it has practically been in the hands of the same family connexion. Since the death of his brother the responsibility of the extensive business rested upon Mr. T. K. Newbigging. He succumbed to an attack of pneumonia. A man of genial nature, if somewhat bluff and outspoken, Mr. Newbigging was well liked.

# WILLIAM SOWERBY.

We regret to learn of the death of Mr. William Sowerby, who for many years was secretary of the Royal Botanic Society. As the holder of this position Mr. Sowerby was well known in the horticultural world.

# HENRY E. MILNER.

THE death, at the age of sixty-one, is announced of Mr. H. E. Milner, of Messrs. Milner and Son, one of the most famous English landscape gardeners. His name will be remembered in connexion with the Earl's Court Exhibition of 1892, with which he was prominently identified. Mr. Milner had a distinguished career as a landscape gardener, thus following in the steps of his father, Mr. Edward Milner, who was eminent in his day. The work of the firm is now in the hands of Mr. E. B. Milner and Mr. E. White.

# JOHN CAIRNS.

A GENERAL feeling of regret will be felt among Scottish gardeners and others at the announcement of the sudden death at Coldstream, Berwickshire, on the 15th inst., of Mr. John Cairns, who was for many years gardener to the Earl of Home at his Berwickshire seat, The Hirsell, near Coldstream. He was one of the ablest of Scottish gardeners, and the frequent appearance of his name in the prize lists of the Edinburgh shows, mainly in the fruit classes, attested his skill. He was held in high esteem as a good judge also, and he was for a number of years one of the members of the Royal Caledonian Horticultural Society's fruit and vegetable committee. It was only last year that Mr. Cairns retired from his duties at The Hirsell. It will be remembered that he was succeeded at The Hirsell by Mr. M. McAndrew. The funeral took place at Lennel on the 19th inst., and was very largely attended.

"The Book of Cut Flowers."—With reference to the notice of this book which recently appeared in THE GARDEN, Mr. T. N. Foulis, publisher, Edinburgh, asks us to say that the price is 3s. 6d. net.

Sale of Willow trees for bat making.—At a recent important sale of Willow trees on Sir Walter Gilbey's estate, close bark trees suitable for bat and toy making met with a ready sale, and made up to 11s. 6d. a foot, trees of this kind from Sheering Lock being bought by Shaw and Shrewsbury of Nottingham.

\*. The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

# THE GARDEN.

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## SWEET VIOLETS.

**V**IOLETS are very easily grown in some gardens, while in others they are seldom satisfactory. In taking charge of a fresh garden one has to find out by experiment in which position and soil they grew best. They are grown successfully on north, east, and west borders, and in a heavy clay soil on a south border. Violets may also be grown in the open quarters of the kitchen garden. The weather during the season of growth has much to do with the behaviour of the plants. When propagating the Violet it is better to divide the old plants than to take cuttings. This is done as soon as the flowering period is over. Instead of dividing the plant to single crowns, three crowns are left to form a plant, all weak ones being discarded. Flowers quite as fine as those produced by plants raised from cuttings or single crowns may be obtained from plants thus treated. The advantage of this method is that the plants quickly become established and make fine healthy leaves, which seldom fall a prey to disease or red spider. When dividing the plants do not allow the roots to become dry before they are planted. If the land where the Violets are to be planted has been previously dug or trenched, a layer of leaf-soil forked into the surface, with a light dressing of soot, is all that is necessary to complete the preparation. Plant firmly, and sprinkle with water should the weather be dry. Violets require copious supplies of water during hot, dry weather. When growing freely remove all side shoots (runners), so as to secure good crowns. The ground between the plants should be constantly stirred with the Dutch hoe during the growing season. A small quantity of a reliable fertiliser may be placed round the plants after they have become established (at intervals of a fortnight), and in the absence of rain should be well watered in. Should red spider be troublesome, dress the plants over with soot and lime, repeating the operation until the pest disappears.

Cold frames should be prepared for the reception of the plants in the month of September. A decided advantage is obtained by placing the frames on a bed of leaves; the leaves when firmly trodden should be about 3 feet above the level of the ground. By this means the plants obtain more light and air,

while the leaves provide ample drainage. After arranging the frame or frames on the bed of leaves, place in the soil in which the Violets are to be planted. The soil should consist of rather light loam and leaf-soil; this should be trodden quite firm before planting. Do not plant thickly. When planted the Violets should be in such a position that, when the lights are placed on the frames, they are just far enough from the glass to escape damage. As a rule little water is required during the winter months. All decaying matter should be picked from the plants and abundance of air given at all times, excepting during severe frosts. Remove the lights entirely during mild, fine weather.

Good varieties of Violets are: *Double*—Marie Louise, large, rich lavender-blue (a general favourite); Neapolitan, lavender, with a white eye, rather later in flowering, and not so free as the former; Swanley White, very free; and Lady Hume Campbell, a shade darker than Marie Louise. *Single*—Princess of Wales, very large and free, with long stalks; wellsiana, a very fine dark violet; The Czar, very dark and free; and La France, very stiff-stalked, bright blue-purple.

## ASPARAGUS.

THE Asparagus is indigenous to Great Britain, and is usually found growing wild on the coast and near the sea-shore. It is especially common on the coast of Cornwall, some parts of Wales, and Lincolnshire, where, if the soil it grows in is not actually impregnated with salt, the atmosphere certainly is so impregnated, and from which the plant must derive sustenance peculiar to its wants. The soil on which it naturally establishes itself is invariably light and sandy. There is an idea among amateurs and our working population that it is difficult to grow Asparagus. This is unfortunate, as the Asparagus is well adapted for growing in cottage gardens, and I venture to assert that, once beds are planted and well established and the culture of the plant understood, no other adjunct of our cottage homes would give the cottager more profitable return than the Asparagus beds. In France we know it is an immense and profitable industry. In some districts every cottage has its Asparagus garden, chiefly cultivated by the wife and children, and for the produce a ready market is found, chiefly in England.

### PROPAGATION.

This is effected by seeds, which should be of the best quality. I would advise all who grow Asparagus to save their own seeds, and not only the largest, but from the strongest plants. Small seeds gathered from weak growths should on no

account be made use of. Seeds may be bought cheaply, and are within the reach of the poorest.

### RAISING THE SEEDLINGS.

Select a piece of land large enough for the purpose of raising as many plants as are likely to be required in a sunny position in an open quarter of the garden, land which has been manured and properly cultivated the winter before. The first week in April is a good time to sow the seeds. They should be sown in drills 3 inches deep, 1 foot apart, and be 3 inches to 4 inches apart in the row. Select a dry day for the work, and tread the seed in as for Onions, afterwards drawing the rake lightly over the ground. Cultivation for the first year will consist of thinning out the plants as soon as large enough to handle, leaving them 6 inches apart in the row, and keeping the ground free of weeds by frequent hoeing. In the course of the year the young plants will form excellent roots for planting in permanent beds the following spring.

### PERMANENT BEDS.

If one bed only is to be made, the width I would recommend is 5 feet for the bed and  $2\frac{1}{2}$  feet for the alleys, one each side, making 10 feet altogether. In the previous autumn this ground should have been well manured. The ground should be trenched at least 3 feet deep, turning over the bottom spit in the bottom of the trench. The manure should be well distributed, though not allowed nearer the top than 6 inches. To some it may appear superfluous to manure and trench the alley ground, but it is not so. The plant is a strong rooter and a voracious feeder; and will soon avail itself of the manure found in the alley. The first week in April, should the weather be favourable, is the best time to carry out the work of planting. The first thing to do is to mark out the alleys; afterwards throw out of the alley the top soil to the depth of 5 inches and place on the bed. This additional soil should be levelled down with the rake, and the surface prepared to receive the roots. A bed of this size will take three rows—one in the centre, and one each side at distances apart of 15 inches. It is a good plan to place a small mound of soil and manure beneath the root, so that when the latter is pressed down it rests firmly on the soil. A small spade of the same compost is used to cover the roots as soon as placed in position, and pressed firmly down with the hands. Afterwards 4 inches or 5 inches more of the soil from the alley is added to the surface of the bed, uniformly covering the roots with 4 inches or 5 inches of soil, and the bed is completed.

One-year-old plants give by far the most satisfactory returns. The greatest care must be taken to plant the roots immediately they are taken out of the ground.

### THE BEST SOIL.

A light, friable loam is best, and the position should be a sunny one. Where the soil is heavy, extra drainage must be provided, and this is secured by deepening the alleys, thereby raising the beds. If the soil is of a marly or clayey nature, dig out the beds to the depth of 2 feet, leaving it open for twelve months for the reception of all the refuse of the garden—old Cabbage stalks, leaves, grass, road scrapings, or anything

else of a perishable nature which would otherwise find its way into the rubbish heap. This makes an excellent base for the Asparagus in this class of soil, securing perfect drainage, and when fermentation and decay have taken place this rough material is converted into rich manure, available in the course of a year or two for the sustenance of the plants. This material should be covered with a layer of soil 6 inches deep, and on the top of this should be placed 6 inches of manure, then cover with soil to the depth of 4 inches, and the bed will be ready for planting.

OWEN THOMAS.

(To be continued.)

## THE EDITOR'S TABLE.

### FLOWERS FROM SWANMORE PARK GARDENS.

Mr. Ellwood sends several interesting flowers for our table. Among them were flowers of a beautiful white Persian Cyclamen, the orange-coloured Honeyuckle (*Lonicera sempervirens*) from a greenhouse, annual Larkspurs (showing their value at this season, the pure rose colouring being very effective), white Stocks, and Nicotiana Sanderae, the rich crimson type, a most interesting selection, and showing how much beauty may be derived from flowers under glass in winter and early spring.

### A BEAUTIFUL SEEDLING DAFFODIL.

From the Royal Botanic Gardens, Glasnevin, Mr. F. W. Moore writes: "I send you herewith a very pretty pale seedling Daffodil from County Wicklow. It is very early, and a beautiful delicate colour, with sturdy growth. It seems worth a distinctive name. In the garden from which it came many species of Narcissus seed about naturally, and there are other interesting crosses in it. A large part of the garden is carpeted just now with a very pretty form of minor, of which I also send a sample. You will notice how dwarf it is, and also the beautifully-frilled trumpet. It is a much more refined flower than the ordinary forms of minor. *Rhododendron barbatum*, *R. Shepherdii*, *R. fulgens*, all large plants, were crimson masses 10 feet to 20 feet high, but the early *Rhododendrons* had been caught by the frost."

[The Daffodil is certainly a beautiful one. The colouring is soft and most pleasing; the small trumpet is primrose yellow, and the perianth segments are somewhat paler. Its value is enhanced by its earliness.—Ed.]

### FORMS OF CEDRUS DEODARA.

Mr. J. Comber, The Gardens, Nymans, Crawley, sends a most interesting series of sprays of half-a-dozen different forms of *Cedrus Deodara*, and directs attention to the distinctive features of the variety robusta. This, in the shape of a specimen some 10 feet or 12 feet high, is particularly noticeable, though even a cut spray shows some of its most marked characteristics. It differs from the ordinary form in being stouter both in leaf and branch, while the foliage is also longer. The branches are fewer in number, but are altogether more pendulous. It frequently shows a disposition to grow somewhat one-sided, but this may be partially owing to its being propagated by means of cuttings or grafts, which seldom form such symmetrical-shaped specimens as seedlings. The other five varieties are: albo spica, in which the young leaves are whitish; aurea, whose young foliage is of a decided yellow tint, which changes with age to the normal green of the species; Sargentii pendula, a pretty weeping form; verticillata glauca, the leaves of the young shoots being whorled instead of scattered, and quite glaucous; and viridis, whose leaves are of a much deeper green than those of the type, and without any of the glaucousness common to the species.

## PRIZES FOR GARDENERS.

### AWARDS IN THE FEBRUARY COMPETITION.

The first prize of four guineas for the best essay on "Window Gardening" is awarded to Mrs. E. Lloyd Edwards, Bryn Oerog, Llangollen.

The second prize of two guineas to Mrs. F. A. Bardwell, Mundesley-on-Sea.

The third prize of one guinea to Mr. H. Franklin, Syston, near Leicester.

The fourth prize of half-a-guinea to Mr. Arthur G. N. Lauder, 16, Lynette Avenue, Clapham Common, S.W.

Many papers were sent in; those sent by the competitors mentioned below were all very good and worthy of commendation. The mistake made by most competitors was that of giving lists of numerous plants suitable for window gardening, instead of showing how a few of the best plants might be used with good effect. It is not difficult to name a large number of plants that would grow more or less satisfactorily in a window-box, but in so doing little practical information would be afforded. The papers sent in by the following are commended:

C. W. Canfield, Bridgen House, Park Crescent, Ealing; Marguerite E. Bickelsteth, West Lodge, Epsom; A. Cecil Bull, The Lodge, Wiveton, Clay-next-Sea, Norfolk; W. H. Scott, The Hermitage, Teyford, Berks; Mrs. Scott Wayman, Brackendene, Parkstone, Dorset; Mrs. Castle, Church Villa, Lymington, R.S.O., Kent; H. L. Sell, Cromwell Road, Luton; W. H. Forster, Ruthin Castle Gardens, Ruthin; Thomas Smith, Walmgate Gardens, Louth; Walter Maw, Friarwood Nurseries, Pontefract; Sidney Legg, Woburn Abbey Gardens, Beds; H. Hall, Lathom Gardens, Ormskirk, Lancs; E. Ball, The Cottage, Stradbroke, Eves; Sidney J. Weeks, Tredegar, B. & M.; Thomas Banyard, 61, Grens Road, Richmond, Surrey; W. H. Aggett, Bermondsey; W. McDermott, The Gardens, Roebuck Castle, Dundrum, Dublin; David Chaplin, Brooklyn Cottage, Chesapeake, Ascot; G. Waller, Cook Crow Hill, Sarbliton; C. Euse, Munden Gardens, Watford; F. Alkin, The Gardens, Mossley Vale Houses, Liverpool; W. J. Rendall, Howells Road, Malvern Link; E. Grima, The Gardens, West House, Mornington, Edinburgh; T. E. Twitche, Bexley, Kent; T. Latham, The Gardens, Warwick Cottage, New Brighton, Cheshire; Charles Blair, Preston, Llanthyllt; Mrs. Robert Morley, The Old Hall, Leadenham, Lincs; Miss Hopkinson, Sutton Grange, Wansford, Northamptonshire; W. Dyson, Aldermaston, Berks; H. Tomalin, Tower Hill House Gardens, Kingsclere, near Newbury, Berks; Victor Hugo Lucas, 19, Promenade, Walney, Barrow; W. H. Morton, St. James's Crescent, Gloucester; Charles Townsend, The Gardens, Asbury, Ewell, Surrey; Ronald Ernest, 12, Lebanon Park Mansions, Richmond Road, Twickenham; L. Lavender, Waltham Manor Gardens, Teyford, Berks; Ella H. Friend, Bower House, North Cray, Kent; G. H. Webster, Oak Cottage, Dit Place, Woolton, near Liverpool; William Peebles, 98, McLellan Street, Glasgow; Mrs. Helby, 14, The Crescent, Alverstoke, Hants; S. Popplewell, 12, Camp Hill, St. Albans, Herts; F. Cox, Ingleside, Blackwell, near Bromsgrove, Worcestershire; George Annand, Basildon Park, Reading, Berks; and John Lawless, Acton Burnell Park, Shrewsbury.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

April 3.—Royal Horticultural Society's Exhibition and Meeting.

April 3.—Cornwall Daffodil Show (two days).

April 3.—Brighton Spring Show (two days).

**Some forthcoming shows.**—The twenty-fifth exhibition of the Sutton and District Rose Society will be held in the Public Hall, Sutton, on Tuesday, July 3, when four challenge cups, two pieces of plate, National Rose Society's and other medals, and money prizes will be competed for. The hon. secretary is Mr. E. J. Holland, Silverdale, Grange Road, Sutton. Darlington Spring Flower Show will be held on Wednesday, April 25; the hon. secretary is Mr. A. H. Harrow, Priestgate House, Darlington. The Cheddle and Cheddle Heath Horticultural Society's third annual show will be held on Friday and Saturday, July 27 and 28. The schedule is a comprehensive one, and many special prizes are offered; the address of the hon. secretary is Westleigh, Cheddle Heath, Stockport.

The London parks are now well worth a visit. Masses of Crocuses, which have coloured the grass for some weeks, are almost over, but they are succeeded by an ever-increasing host of Daffodils, which are fast opening in bed and border. Scillas and Glory of the Snow, too, are in full flower, and Tulips and Hyacinths in immense numbers will soon be out. Although the latter flowers have not the grace of the Daffodil, they make such a brilliant and welcome display of colour that they are always admired. Almond, flowering Currant, early *Rhododendron*, Forsythia, and other shrubs are in bloom, and the London parks will soon be full of a fresh beauty that only spring flowers can give.

### Royal Botanic Society's Gardens.

During the last four years these beautiful gardens in the Inner Circle, Regent's Park, have been much improved, especially the glass house departments. Needless to say, the character of the grounds has not been altered. The houses for the cultivation of economic plants and the Victoria Regia Lily have been rebuilt, and the large conservatory, which has been bright with flowering plants throughout the winter, has been repainted. Mr. E. F. Hawes, the garden superintendent, has done excellent work since his appointment, and the increasing number of visitors to the gardens shows that the improvements carried out are appreciated.

**Bulb show at Dunfermline.**—In September last the Carnegie Dunfermline Trust made a distribution of between 3,000 and 4,000 bulbs of Croci, Narcissus, Hyacinths, and Tulips among the children of Dunfermline, in some cases pots and soil being provided in addition. A show was also arranged for, and this took place in the Dunfermline Drill Hall on the 17th inst. The competition was very keen, and in some classes was so close that it was found necessary to add to the prize money which had been provided. The quality of the flowers was good, and the interest displayed by the children and their parents most gratifying.

### Compounds (poisonous) for horticultural & agricultural purposes.

I am pleased to inform you that the Lord President of His Majesty's Privy Council has introduced into the House of Lords a Bill known as the "Poisons and Pharmacy Bill." Clause 2 of such Bill reads as follows: "2. (1) So much of the Pharmacy Act, 1868, as makes it an offence for any person to sell or keep open shop for poisons, unless he is a duly registered pharmaceutical chemist or chemist and druggist and conforms to regulations made under section 1 of that Act, shall not apply in the case of poisonous substances containing arsenic, tobacco, or the alkaloids of tobacco, for use exclusively in connexion with agriculture or horticulture, if the person so selling or keeping open shop is duly licensed for the purpose under this section by a local authority, and conforms to any regulations as to the keeping, transporting, and selling of poisons made under this section." The principle of this clause is precisely that for which the Traders in Poisonous Compounds Protection Society has for some years been contending. It will be noted that the Bill provides to authorise persons (who are not chemists) to be licensed for the purpose by the local authorities of selling insecticides, weed killers, sheep dips, and other poisonous substances for use in connexion with agriculture and horticulture, thus carrying into effect the recommendations of the Privy Council Departmental Committee. This should be most gratifying, and (the Bill having been read a second time in the House of Lords recently) it is now of the utmost importance that all those interested in the matter should at once approach the Members of Parliament for their districts asking support to the second clause of the Bill in its present form. Any further information required by your readers I shall be pleased to supply.—G. H. RICHARDS.

**The federation of gardeners' societies.**—With reference to this subject I venture to make the following suggestions: 1. Will all secretaries of gardeners' mutual improvement societies kindly post me the name of the society they represent, with their own address, and add a few supplementary remarks as to their members' ideas of the proposed federation outlined in my letter of the 10th ult.? 2 The fixing of a suitable date and place, when and where representatives from other gardeners' societies can attend and discuss the matter, and appoint a provisional committee to draw up a scheme, which could afterwards be submitted to another meeting at a later date for confirmation. I am anxious to get a general opinion as to the form the federation should take. I should like all replies to reach me not later than the 31st inst.—**HARRY BOSHER, Hon. Secretary West Croydon and District Horticultural Mutual Improvement Society, 62, High Street, Croydon.**

**Culture of flowers by Dundee school-children.**—The sixth annual exhibition of spring flowers grown by the children attending Dundee schools was held on the 10th inst., when the spacious Drill Hall, Dundee, was gay with spring flowers, such as Hyacinths, Crocuses, and other bulbs, exhibited by no fewer than 3,000 children of Dundee. The display, upon the whole, showed wonderful skill and care on the part of the children, and the brightening influences of the cultivation of the flowers in a city like Dundee cannot fail to have been most beneficial. The opening ceremony was performed by Mrs. Longair, wife of the Lord Provost of the city, and there was a large attendance of the children and their parents. The Corporation had supplied free no less than 11 tons of suitable potting soil for the purpose of growing the bulbs.

**Shrewsbury Floral Fete.**—The total takings of the Shropshire Horticultural Society since its first show in 1875 amount to £93,797 15s. 7d., and the list of donations to various public improvements and monuments in Shrewsbury reaches the munificent sum of £8,530.

## THE FRUIT GARDEN.

PEAR CHARLES ERNEST.

**I**N your issue of January 6 a good illustration and a short eulogistic notice are given of this very good winter Pear. There it is incorrectly stated that it was raised by Messrs. James Veitch and Sons, Limited, Chelsea. I may safely say that this valuable Pear was raised by M. Ernest Baltet of Troyes, and put into commerce in 1879. It may also be of interest to your readers to know that among the novelties put into commerce last autumn by this famous firm there are some very good Pears, as, for instance, the following:

**Rosevelt.**—Very large fruit; skin smooth, clear yellow, tinged with rose-salmon, vermillion on the sunny side; flesh of the purest white, melting, very juicy and sugary; one of our largest fruits. The tree is very vigorous, and of great fertility.

**Professeur Grosdemange.**—Fruit large, of pale yellow colouring, freely tinged with rich vermillion

on the sunny side; flesh white, delicate, melting and juicy, rich in sugar, of very good quality; season January to March; tree vigorous and fertile.

**Mme. Ernest Baltet.**—Fruit large, of pyramidal form, bright yellow in colour, slightly stained with russet, often flamed with vermillion; flesh white, very delicate, melting, juicy, aromatic, and sugary. In season from the middle of September to the end of October. The tree is compact and fertile.

**Virginie Baltet.**—Fruit large, pyriform; skin pale green or yellow, finely speckled; flesh yellowish, very melting, juicy, and aromatic; in season November to December. The tree is vigorous either on the Pear or Quince stock.

**Professeur Opoix.**—Medium-sized fruit, yellow stained, and speckled with russet; flesh yellow, melting, very juicy and sweet; a first-rate Pear; in season January to March. The tree is vigorous, fruiting freely either on the Pear or Quince stock.

**A. MARCHALEK (Foreman),**  
Chateau Dubarry's Gardens, Louveciennes,  
S.O. France.

### MEDLARS.

TASTES are proverbially divergent, and there are many persons who cannot acquire a liking for a well "bletted" Medlar, just as there are some who profess to dislike fresh ripe Figs. In these

## THE PLACING OF CLEMATISES.

**C**LEMATISES are not only useful for adorning house walls, pergolas, arches, and trellises—they can be of great service in beds; while perhaps the loveliest of all ways of exhibiting their beauty is to surround a lawn with them, giving each variety a pillar, and placing these pillars 6 feet apart, with chains slung from one to another.

When the Clematis is studied it will be recognised as one of the very best flowers for cultivation as a hobby. So few gardens show forth more than five or six sorts—the majority contain but the violet Jackmanni, with, perhaps, a montana or a Lady Caroline Nevill—that a collection of Clematises will soon achieve celebrity throughout a county.

The above-mentioned method of placing Clematises can, of course, be carried out in a large or a small pleasure-ground, and it may be preferable in some cases to range the pillars along a wide gravel path, or on either side of a grass walk. I simply advise this for a lawn because the space can generally be spared. Grass is apt to be left to form too level a stretch in the garden scene,



A SPRING PICTURE AT KEW.

(Crocuses on a mound, showing the result of thick planting. The flowers less conspicuous are of blue and yellow varieties.)

and other cases a little experience and education sometimes alter both opinions and tastes materially. With regard to Medlars in particular, if the right variety is had at its best there is a spicy richness about it so distinct from all other fruit that it is very enjoyable to many persons. Beyond this, the tree is so distinct in habit, foliage, and flowers that it forms a picturesque addition to any fruit garden, especially when it has reached fair proportions. The varieties are not numerous, but by far the best of those I have grown is Nottingham. Although the fruit is small compared with the Broad-leaved Dutch Medlar, the flavour is much superior, being very rich in its best condition, namely, when the fruit has been "bletted" slowly in a cool fruit-room. The Dutch variety is a very strong spreading grower, and makes a very distinct tree, but the Royal is preferable to this in quality, though it is more acid than the Nottingham. A variety termed Sans Pépin or Stoneless appears to be related to the last-named, but it is not so good in quality, though the fruits are usually without any noticeable core, and they keep well. It is rather strange that *Pyrus germanica* has not given rise to any ornamental varieties of garden value, unless *P. lobata* has originated from that and a *Crataegus*.

LEWIS CASTLE.

and the velvet turf serves as an admirable carpet under the flower-wreathed chains.

Other carpets should, however, be provided. Each climber should be planted in a small round bed, after the style that is so familiar to us beneath standard Rose trees. These beds can be closely filled with small subjects, for the Clematis roots will not suffer. Violas are, perhaps, most suitable of all, and exquisite colour harmonies can be gained by choosing them of tints that look best with those of the climbers.

In order to ensure a good effect throughout the summer and autumn, it is best to alternate a May and June blossoming Clematis with one that comes into flower later and continues long. A more elaborate way to gain constant florescence is to put up double pillars opposite each other, and not more than 2 feet apart. An early and a late Clematis can then be associated, and two chains instead of one, crossed in the centre, will be necessary between the groups.

There is another use for Clematises that can seldom be seen carried out, yet which is most attractive in effect. This is to set pillar-supported plants at intervals all over a very large lawn bed, or the wide border bed that so often ends a lawn. I have seen an excellent display arranged thus, with named Carnations filling the



whole of the remaining ground space, except for an edging belt of mixed *Violas*. The *Carnations* thoroughly appreciated the light kind of shading given by the *Clematises*.

When pillar plants are set over a bed it is possible to connect them with chains, and the result is pretty and original. In this case the plants cultivated in the spaces must



DISEASED ROSE SHOOT.

be of so hardy a nature as not to object to a good deal of shade and drip. Ivy-leaved pink *Pelargoniums* will thrive, I have found, and the pale rose colour suits the purples, mauves, and clarets, as well as the blues. Of course, there are *Clematis* shades that are most inartistic when juxtaposed. *Star of India*, the plum with red bars, is absolutely killed by the ordinary *Jackmanni*; velvety red *Mme. Edouard André* must never be near a red *Jackmanni*; and the silver-lilac of *Princess Beatrice* must be shown up by association with a bright or dark *Clematis*, as against a pure white, such as *Mme. Van Houtte*, its pearly tint looks positively dirty.

*Clematises* may be planted any time from September to May, or even June, but in most localities March is a suitable month. Supposing the beds to have been deeply dug and enriched last autumn, it will only be necessary to make deep holes to take the roots, and line these some depth with loam and half-rotten manure. A layer of the same old manure can be spread all over the bed before the top soil is raked level again, and the earth may be lightly drawn across it to prevent unsightliness. I have suggested *Violas* as carpet plants; the rich feeding of the climbers will be of great benefit to them also.

A question must arise as to the right sort of pillars to use. I always think that trellis-work, of the painted deal type, should be reserved for forming the screens that are often such boons in gardens large or small; but double pillars of natural Larch, latticed between with small boughs of lichened wood, are always charming, and the extra amount of woodwork will be a help in supporting *Clematises*. A single Larch pole is, however, quite sufficient for each plant. In fact, any natural wood, or stripped wood, will not be out of place.

It should be remembered that *Clematises* thrive splendidly in seaside localities, and also in the suburbs of inland towns. Varieties of *Clematis* are innumerable, but attention

may be drawn to the distinctive beauty of the following:

*May and June blooming.*—Fair Rosamond, bluish white and red; Mrs. Quilter, snow white; The Queen, lavender; Othello, deep purple; Aureliana, blue and lavender; Mrs. S. O. Baker, white, with claret bars; John Gould Veitch, double lavender; Duchess of Edinburgh, double white; Belle of Woking, silver-grey.

*Summer and autumn blooming.*—Jackmanni, La France, violet-purple; Beauty of Worcester, violet and white; Mrs. Hope, mauve; Louis Van Houtte, darkest purple; Grand Duchess, white and rose; Fairy Queen, flesh and rose; Marcel Moer, red-mauve; Lanuginosa nivea, white; Ville de Lyon, carmine-red; rubra grandiflora, claret; Mrs. George Jackman, white and cream.

E. J. DUNHAM.

## A NEW FREESIA.

A NEW *Freesia* was recently shown before the Royal Horticultural Society by M. C. G. van Tubergen, jun., Haarlem. It has fragrant, lilac-coloured flowers, with white showing through here and there. In size and colour this *Freesia* is a great improvement upon *F. Armstrongi*. This and *F. refracta alba* were the parents of

*Freesia Tubergeni*. *Freesias* are delightful greenhouse flowers for early spring, and a greater variety of colour amongst them will be most welcome.

## THE ROSE GARDEN.

### A ROSE PROBLEM.

THE accompanying sketch shows a portion of a branch of a *wichursiana* Rose that is very similar to one which reached me a short while ago. The rosarian from whom it came described it as a case of canker, and desired me to suggest a remedy, but after examination I came to the conclusion that his diagnosis was incorrect, and that the cause of the almost wart-like excrescence was solely due to injury by frost. I have had many instances of this among my own plants, and, as others like my correspondent may be puzzled to account for it, a brief explanation may not be considered out of place. Those who have had much experience with climbing Roses know full well that their sap is frequently active until hard weather sets in. *Carmine Pillar*, *Aglaia*, the *wichursiana* hybrids, and *Grüss an Teplitz* may be mentioned as varieties which furnish a case in point.



THE NEW FREESIA TUBERGENI.

(Shown by C. van Tubergen, jun., Haarlem, at a meeting of the Royal Horticultural Society on the 6th inst.)

In November, 1904, towards the latter part of the month, we registered here 23° Fahr. of frost, following upon a remarkably mild autumn which was the cause of the late growth of the Roses. These sharp frosts continued for at least a week, and were always followed by bright sunshine, which, of course, aggravated the mischief, and wrought more damage to my Roses than I have ever known happen before in November. Teas were killed to the ground, and even the thickest stems of Crimson Rambler had to be cut away the spring following. The wichuraiana varieties passed through the ordeal almost unscathed, save for one or two branches of Elisa Robichon which were frost-bitten. When, however, I came to examine them I found that on several of the branches there was a narrow strip of bark which did not appear to have been injured. Purely as an experiment I decided to leave them alone and see whether the injuries would heal naturally. What actually happened is demonstrated by the diagram in a far more effective way than I can hope to explain by words. One or two of the branches flagged and died, and, on examination, their pith proved to be completely frosted through, but most of them were not injured so badly, and began to form a callus over and around the frosted portion. This process has continued up to the present time, until the wood which was injured has been quite replaced by this wise provision on the part of Nature. Rosarians should never be too hasty in removing the young wood of climbing Roses which has sustained slight injury from frost. Carmine Pillar is, I find, apt to have its bark blackened by frost, and yet blooms freely the following spring on this same wood. If this wood be retained, in nine cases out of ten fresh bark will be formed, but it is usually best to dispense with this immediately it has done flowering. Fortunately the past winter has been a most remarkably mild one, and all garden Roses will be able to be pruned with a light hand. I hear complaints, however, of climbers being a little sappy, and in such cases a dressing of lime strewn among the plants will be found beneficial.

Worcestershire.

A. R. GOODWIN.

## THE FLOWER GARDEN.

### BLUE TUFTED PANSIES.

**U**NDER this heading must be included varieties of different shades of blue. Several of the varieties have been in commerce for many years, while others have only been quite recently acquired. Tufted Pansies of this and kindred shades of colour have been very popular of late years, and from enquiries recently made there appears to be the prospect of an even keener demand in the near future. These plants are not only used for massing in beds and borders, but there is an increasing demand for them as a carpeting for other subjects, such as Carnations and Roses. In some instances the effect is distinctly pleasing. The following sorts include the most attractive of the series:

*Admiral of the Blues*.—One of the best rayless flowers of a deep blue colour, with rich yellow eye. Growth rather indifferent.

*Ophelia*.—Large bluish heliotrope flower of good size, and rayless. Neat yellow eye. Free flowering, and strong in growth.

*Charles Jordan*.—A very good bluish mauve flower of large size, and faintly rayed on the lower petal. It comes into flower quite early, and continues into the autumn.

*Blue Peter*.—This is a novelty of considerable promise. The flowers are of a deep blue colour, of medium size, and rayed.

They are produced in the greatest profusion on plants of tufted growth.

*Augustine*.—This is a seedling from Blue Gown, but more robust than that variety. Colour, mauve-blue. Strong grower.

*Blue Gown*.—Where good, healthy stock of this pretty mauve-blue rayless variety can be procured it should be extensively planted. It is very free.

*Duncan*.—This can hardly be called blue, but is sufficiently near to be placed among the kindred shades of colour. It is a dark, bluish mauve flower, and slightly rayed. It is excellent for the border, as it is free, and strong in growth.

*Britannia*.—A seedling from Blue Gown, developing darker and larger blooms than that variety.

*Bridal Morn*.—This is a distinct and attractive pale heliotrope-blue rayless flower, with a yellow eye, borne on long footstalks. It blooms profusely, and is a plant with a good constitution.

*Imperialist*.—A pretty greyish blue flower of a most attractive kind, and for massing is a most valuable variety.

*Favorite*.—Another seedling from Blue Gown, the colour in this instance being a shade of grey-blue. Very effective when massed.

*Magnificent*.—Still another seedling from Blue Gown, with flowers of a somewhat similar shade of colour, but much larger.

*True Blue*.—This is a heavily-rayed, oval-shaped flower of a deep blue colour, free flowering, early, and of good habit.

*Rolph*.—A charming grey-blue flower of the most dainty kind. Rather small blossoms, freely disposed on plants with a good habit of growth.

*Thrasher*.—A large, deep heliotrope-blue flower, slightly rayed. Not unlike Ophelia in many respects.

*Archie Grant*.—This is a well-known, rich indigo-blue flower of large size and good substance. Strong grower, but not so free as many others.

*William Haig*.—Said to be an improvement on Archie Grant, but the difference is very slight.

*Walter Gale*.—A free-blooming, purple-blue flower, slightly rayed, and most effective.

*Jackdaw*.—This is a rayless flower of good form, of a soft, bluish purple colour. Borne on erect flower-stalks on plants with a good habit of growth.

D. B. CRANE.

## THE CYCLAMEN DAFFODIL.

(NARCISSUS CYCLAMINEUS.)

In answer to your correspondent on page 148, I have never tried to naturalise the above in a moist situation, and cannot say how it would be likely to flourish under such conditions. It does remarkably well here in what may be described as peaty sand. In the early nineties Mr. Peter Barr was good enough to offer me a selection of different types of Daffodils with a view to naturalisation in various spots in our 60 acres of pleasure ground. I told him our soil was poor, sand close to the surface and sand right down for many feet, the only good feature being that starting at 6 inches below the surface the sand was damp. "Put the bulbs down on the damp sand," said Mr. Barr. I did so, with the result that the majority of the varieties are thriving after fifteen years' planting, cyclamineus among the number. Our colony of cyclamineus is in a spot to which a rather interesting history attaches. In the days when Claremont was an asylum for Louis Philippe and his consort the children amused themselves occasionally by throwing up earthworks in

different parts of the pleasure grounds on a very small scale, on which miniature cannon were placed to sweep the open glades, and it is inside one of these earthworks that the colony of cyclamineus is flourishing. In a future note I should like to chronicle the result of twenty years' experience in naturalising, choice of varieties, selection of soil and site, and the probable longevity of each from a free-flowering standpoint when undisturbed.

Claremont.

E. BURRELL.

If "Narcissus" will plant this charming little Daffodil in the turf on a well-drained loamy soil under the shade of some deciduous tree, where the grass is quite dwarf, preferably on a bank sloping towards the North, I think he will be successful. I have planted it in such a position, and it not only flowers well, but produces seed, a sure sign that it is quite at home. It may also be grown successfully on a rock garden in a suitable situation or in pots. Like many of the smaller varieties of Daffodil, it will not flourish in cultivated soil. Such little gems are, besides, more suited for naturalising in turf or growing on rockeries than on flat soil, where, being so dwarf, they get badly splashed in heavy rain.

W. A. WATTS.

I SEND some pages from Messrs. Barr and Sons' Bulb List of 1891. I think growers will get more information in these annual lists as to treatment of natural sorts than anywhere else. I have here in a 5-inch pot eighteen blooms of *N. cyclamineus*. This is the second year, and a great increase on last year. The bulbs are in a cold frame, and the flowers opened in a cool Peach house. At the foot of a rockery, in the same size of space, sixteen flowers are showing.

C. W. COWAN.

## AURICULAS FROM SEED.

In complying with your request to give a short paper on Auricula culture, my difficulty is to find a subject which may be of interest to your subscribers. However, I venture to give a few remarks upon "Raising Seedlings." It must be obvious to all growers of that beautiful and fascinating flower—the Auricula—that time tells its own tale on the older varieties, which year by year get weaker in constitutional vigour; so, in order to fill the gap which these floral veterans leave behind, and at the same time to take steps to nurse the infant which, as time goes on, is to uphold worthily the floral prestige of its predecessors, seedlings must be raised. It seems to me that the object of every enthusiastic grower should be to use his utmost endeavour to make his presence felt in the Auricula world by turning his attention to the culture of varieties of higher class, and not be content to rest upon his oars, so to speak.

It must be that many of the beautiful varieties, whose names are dearly cherished by us, deteriorate year by year, and are thus unable to maintain their reputation on the exhibition table. Therefore, the young must be reared, in order that as one shining light flickers and flickers, and finally fades away with all the glory of its past, another light may be brought forth to scintillate with even more vigour than its predecessor.

Besides the attraction of novelty, new varieties are more vigorous of growth, display greater beauty of foliage, and usually throw more off-sets. The first step in raising seedlings is to select young and hardy plants as seed-bearers. The pipe are prepared for fertilisation by removing the anthers from the flowers at the earliest possible stage to prevent reproduction, and for the easier manipulation. After the anthers are taken away, the pistil is exposed, and will be ready to receive the pollen from the variety selected for cross-fertilisation, the pollen being conveyed on the point of a fine camel-hair pencil. A bright, sunny morning is the most suitable time for this operation.



PRUNUS MUME FL.-PL. AT KEW.

As it is desirable to get seedlings out of hand as quickly as possible to make room for others, time is saved by sowing the seed as soon as ripe. On a fine and firm seed-bed sow thinly and evenly, covering lightly with fine soil, and place a sheet of glass over the pot or seed-pan.

The growth of moss often causes great annoyance. A preventive of this will be found in a continuous watering from the first with lime water. In making the solution, unslacked lime must be used. It is impossible to make it too strong, as the water will not take up the lime in quantity to be sufficiently injurious to plant life.

As soon as the seedlings can be handled, prick off round the edge of convenient sized pots, and grow them on as quickly as possible into, say, 4-inch or 5-inch pots, in whichever it is intended they should bloom.

Careful and patient cultivation brings its own reward, inasmuch as it has been able to produce some new variety, which, with pardonable pride, can be displayed upon the exhibition table or to friends at home; it may also possibly be useful to Auricula growers of the next generation.

Bishop's Stortford.

W. SMITH.

### PRIMULA VISCOSA.

Our illustration shows this charming little plant quite at home in its surroundings. It is a native of the Pyrenees and the Alps of Central Europe, growing on granitic rocks at elevations varying from 3,000 feet to 5,000 feet. One of the prettiest of our rock plants, it is also one of the easiest to manage, thriving well in a mixture of sandy loam and a little peat, wedged between and in the chinks of stones. It likes to be able to thrust its fleshy roots deep into the cracks, where it can obtain moisture, and requires little soil in which to grow. Stagnant moisture in any form must

be avoided, or the plants will soon perish. In planting an open situation should be chosen where it can obtain plenty of light, but the fissure in which it is planted must be deep, and moisture must be within reach of the roots. The flowers of the typical plant are rosy purple in colour, with a paler eye, and are borne in large clusters only a few inches high. There are many varieties of this species, some distinct enough to have been accorded specific rank by different authorities. *P. v. var. ciliata* is more robust, with larger clusters of rich purplish rose-coloured flowers. Of this variety, again, there are forms with blooms of deeper purple and crimson shades of colour. *P. v. var. hirsuta* is a distinct form, with pubescent leaves and pale mauve flowers having a white eye. Last, but not least, there is the charming variety with pure white flowers—*P. v. var. nivalis*. This is one of the easiest to grow, and produces its flowers profusely in the early spring. For culture in pans the various forms of this species are well adapted, as they will be found to grow freely when planted between broken pieces of sandstone and granite. Thorough drainage is most essential, and water should be supplied freely during the growing season.

W. I.

## COLOURED PLATE.

PLATE 1295.

### A NEW DOUBLE-FLOWED BLUE LOBELIA.

**N**O plant is more extensively used for bedding than the Lobelia, and many varieties have been from time to time brought forward as improvements upon those we already have. Some are recommended for their colour, and some for their habit. That which we now illustrate in the coloured plate is entirely distinct from all others, and originated from a chance seedling. It will be seen that it is a variety of the speciosa family, and the sky blue

double flowers are produced very freely. Nothing can exceed their delightful colour and form; it is here shown as a pot plant. It produces no seed, but can be easily propagated from cuttings, and makes a good bedding plant, as the double flower is very lasting; in fact, it seems to come in profusion from early summer to late autumn. It is also useful as a basket plant. Messrs. Carter of Holborn are now distributing the plants.

## TREES AND SHRUBS.

### THE JAPANESE APRICOT.

(PRUNUS MUME VAR. FLORE-PLENO.)

**D**URING the last week of February and the first three weeks of March this was one of the most attractive trees in flower at Kew. It belongs to the Armeniaca, or Apricot, section of the genus, but in general appearance, when in bloom, it more closely resembles one of the double-flowered Peaches than an Apricot. *P. Mume* is a Japanese species, and is known as the Japanese Apricot. Although it has been known for a considerable time, few specimens exist of any considerable size, the largest being probably not more than fourteen or fifteen years of age. Like the Peach, it is very variable, and numerous varieties exist, some with single, others with double flowers, while the colour varies from pink to white and deep rose. The variety illustrated by the accompanying photograph has double pink flowers 1 inch across. Unfortunately, its early blossoming time occasionally leads to disastrous results, for a succession of sharp frosts damages the blooms. It has been known under several other names, two of the most common being *P. Myrobalana fl. roseis* and *Armeniaca Mume*. W. DALLMORE.



AN ALPINE PRIMROSE (PRIMULA VISCOSA).









## AGAPETES BUXIFOLIA.

THIS is a pretty *Vaccinium*-like shrub, which, though grown at Kew for many years and is in the spring always much admired, may be sought for in vain in most gardens and nurseries. As usually seen it forms a neat-branched little bush from 2 feet to 3 feet in height, clothed with Box-like leaves, deep green when mature, and when young of a paler hue, with a reddish tinge. The flowers, which are borne in the axils of the leaves for some distance along the shoots of the preceding year, are tubular in shape, drooping, and about 1½ inches long. Like many of their allies, they are of a wax-like texture, and remain fresh a considerable time. This *Agapetes* is a native of Northern India, where it is said to often occur as an epiphyte. Under cultivation it succeeds with the treatment given to the *Rhododendrons* from the same region that are found under similar conditions, such as *R. Dalhousiae* and *R. Edgeworthii*; that is, a soil composed of fibrous peat and rough sand, as in this the delicate hair-like roots run freely. Thorough drainage is necessary and regular watering essential. Though not easily struck from cuttings, it can scarcely be regarded as difficult provided they are given the same treatment as the Javanese *Rhododendrons*; that is, taken when the young shoots are in a half-ripened state and dibbled firmly into well-drained pots of very sandy peat. While the plant itself will grow in an ordinary greenhouse, the cuttings need a close propagating case in a rather warmer structure. H. P.

WHITE OR HUNTINGDON WILLOW  
(*SALIX ALBA*) FOR BAT-MAKING.

"To handle the Willow" is a well-known cricket phrase that has special reference to the present time, the best bats being made from the timber of this particular species. Bats are also manufactured from the Bedford Willow (*S. fragilis russelliana*), but they are of inferior quality, and only used by the amateur and in second-class cricket. As long, therefore, as our national game of cricket survives, so long will a large and continuous supply of the timber that has been found best suited for the making of cricket bats be required. Unfortunately, at the present time this supply is far short of the demand, and will, in all probability, remain so for the next ten years at least, as repeated warnings regarding the scarcity and value of the timber, and advice as to planting the tree, have to a great extent remained unheeded. True, some ten years ago several dampish tracts of land were planted with the Huntingdon Willow by a keen and far-seeing landowner, but, generally speaking, the best quality of Willow timber is scarce, though one of the readiest to cultivate, and at the present moment by far the most valuable of any home-grown wood.

Apart altogether from its value in an economic sense, the Huntingdon Willow is one of our most ornamental trees, and ranks high as a decorative object in park scenery, the elegant leaves of silvery whiteness on the under-side making a wide-spreading and well-rounded head which is particularly effective when tossed by the wind. This tree, like all the Willows, is of the readiest cultivation, being cheap, of rapid growth, not fastidious as to soil, and not predisposed to disease; indeed, one of its chief values lies in its being able to flourish in situations that would be too damp for most trees except the Alder and deciduous Cypress. But that is not all, for, as before stated, the timber is of considerable value, and when straight and clean grown it commands a ready sale at very remunerative prices—quite three times that of our best British Oak and Ash. Be it remembered, however, that rough, knotty, pollarded stems are not what is required for the making of the best quality of cricket bats, but clean, young wood of about twenty-five to thirty years' growth, and such as has not received repeated injuries from the attacks of farm-stock, owing to the Willow being so frequently planted

by the stream and pond-side, to which cattle have access for drinking.

When growing this Willow for the production of the best quality of timber, the trees should be felled at from thirty to forty years' growth, probably sooner, for it is a short-lived tree unless pollarded, and the timber usually deteriorates after the age of fifty years at most. For profitable planting I know few trees to equal this Willow, especially when grown near the sea, for it is not very hardy at certain places inland, and as dampish, water-logged ground is plentiful by lough and stream there is no reason why it should



SHOOT OF PRUNUS MUME FL.-PL.

(From flowers sent by Messrs. Robert Veitch  
of Exeter.)

not be planted in at least sufficient quantity to cope with our demands. Then the planter has not to wait for a century and a-half, as is the case with the Oak, to be recompensed for his outlay.

The young trees, too, are of the readiest propagation and culture, for they will grow from the smallest cutting or root freely from a post or stump driven into the ground. We would not be far wrong in saying that a sale catalogue of Willow timber suitable for bat-making would be welcomed by merchants at the present time. When we consider, too, that the land suitable for the culture of this marvellously-valuable timber is such as, generally speaking, would not commend itself to the agriculturist, the wonder is that the timber is scarce and that plantations of it have not been formed. Dampish land—yes, even what is partially flooded—will produce high-quality Willow wood, and possibly with the exception of the Alder no other tree is capable of withstanding so great and constant a supply of moisture. A. D. WEBSTER

# GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**LÆLIA ANCEPS.**—One of the best Orchids to grow for producing flowers during the dull winter season is this *Lælia*. The forms of *L. anceps* can well be divided into two classes, coloured and white, the former being the first to flower. They can generally be relied upon to give flowers at Christmas, and are more free flowering than the white varieties. Even the common form is well worth growing, and there are many very beautiful varieties, among the best being *Theodora*, *crawshayana*, *Schrödera*, *Mrs. J. Colman*, *Ameis*, *ballantiniana*, and the large form *chamberlainiana*. Lovely as the coloured ones are, the choice and exquisite white varieties that flower during the latter part of

*Cucumbers in Frames.*—The question may be asked, Can Cucumbers be grown without artificial heat? They may, of course, if we plant what are termed ridge Cucumbers, but, if we wish to grow longer-fruited Cucumbers, except in the very hottest weather in July we must grow them under glass with some root-warmth to start them. When we have arrived at the conclusion that a hot-bed of some kind is needed, we may as well do the thing properly and build a substantial bed that will carry us through the summer and well into the autumn. Assuming, therefore, that a hot-bed to form a base for the frame is required, the next question is, What shall it be made of? The most lasting beds—and it is important that the beds should possess

will do some of the work. If the bed is properly put together and made firm, there is not much danger of overheating, and to some extent this may be guarded against by placing lumps of turf, grass side downwards, in the centre of the frame or all over the bed, the hills of soil being placed thereon.

*Setting Out the Plants.*—As soon as the soil is placed in the frame and is warmed through the plants may be set out, and will grow very well and bear freely in equal parts of good loam and old manure with a dash of soot in it. A bushel of soil in the centre of each light will be enough to start with, as Cucumbers do not want large beds of soil to grow in, but they do want frequent light top-dressings during progress, and, if they are bearing freely, some artificial manure may be mixed with it, but 1 lb. per bushel need not in any case be exceeded. The next point is, What variety shall we grow, and what about obtaining the plants? The beginner probably has no plants ready. If he has any friend near that can help him out, and the plants are healthy and strong, plant one in the centre of each light, and the frame will be furnished speedily, but if no plants are available plant three seeds in a triangular position in the centre of each 6 inches apart, about 1 inch deep, and if the heat of the bed is right they will soon germinate. I have known the man who started with seeds to beat the person who bought his plants.

*Stopping and Training.*—Weakly, spindling plants should always be avoided. As soon as the plants have made rough leaves, training should begin, and when there are three seedlings in the centre of each light they may grow 1 foot or so before stopping. Stopping, of course, means pinching out the terminal bud; then two or more shoots will start, and the frame will soon be filled with bearing wood. One plant will suffice to fill an average-sized light, and then, of course, the leader will be pinched earlier; but when seeds are planted, let the plants grow a little before pinching. By that time a further top-dressing of good soil will be required, and the shoots can be pegged out to fill the frame afterwards. Keep the growth thin by stopping one leaf beyond the fruit. To have green fruits suitable for exhibition, place slates under them to keep them off the soil or grow them in glasses.

*Watering and Ventilating.*—Give a little air early in the morning on bright days; the smallest crack will suffice at the back of the frame to let out the stuffy, polluted atmosphere which has accumulated during the night. Strong, vigorous foliage is the best preventive against red spider and mildew, and this means that the atmosphere must be purified by ventilation. Cucumbers growing on a manure-heap, where there is a moist, genial warmth, do not require a great deal of water at first, but light sprinklings of tepid water at closing-time are always beneficial. Early ventilating will, of course, be followed by early closing—by half-past three in the afternoon, or earlier if the sun is obscured. Permit the sun to do as much work as possible in combination with judicious ventilation, and the plants will be strong and bear abundantly. Cut all fruits as soon as they are large enough for use unless seeds are required. Frame culture is not the best treatment for producing seeds. Liquid manure will be useful when the plants are bearing freely and showing signs of exhaustion. This may be made either from animal manure or a little guano, or nitrate of soda, 1 oz. to the gallon, may be given in the water once a week.



A VALUABLE WINTER FLOWERING ORCHID (*LÆLIA ANCEPS SCHRÖDERIANA*).

January and early February command most admiration; they last longer in flower either when cut or on the plants. Although generally they grow well, they require very careful handling to get them to flower. I am fully convinced that as our knowledge of them increases that difficulty will be removed. They must be rested as much as possible during the early part of the season. I have found a far greater percentage of the late-made growths produce spikes than those which grow early. They require far more light and sunshine than the coloured forms. The variety illustrated, *L. a. schröderiana*, is the finest known, and at the Royal Horticultural Society's meeting on the 13th ult. it was awarded the first diploma. It was a pity that of the other known fine varieties were not there for comparison. Its nearest rival, in my opinion, is the much rarer and beautiful *L. a. waddonia*. Other good varieties are *L. a. Dawsonii*, *L. a. Stella*, *L. a. hollidayana*, *L. a. Bull's White* (a variety without any coloured marking in the throat), and *L. a. Williamsii*.—W. P. BOUND.

a steady, lasting character—are made with about half of fresh stable manure, and the remainder of tree-leaves or whatever accumulation of rubbish there may be about the place which may have some retentive power, even if it does not generate warmth within itself. Everything which ferments will give off some heat. There are various substances about the house and garden that may be mixed with stable manure to increase its bulk. These may consist of hedge and shrub cuttings and mown grass from the lawn. Anything, in fact, that will stimulate or steady the temperature of the bed will be useful if the heat produced and the retentive powers of the substances employed about balance each other. Mix them together, and, if there is any dry material, damp it with water, and then build up the bed 2 feet wider and longer than the frame, the sides to be built square and perpendicular, and made firm by treading or beating as the work proceeds. When completed place on the frame. The height of the bed may be about 4 feet if made up in March. In April 3 feet may do, as then the sun

*The Best Varieties.*—The Telegraph or some of its forms are favourites with amateur growers; it is hardy, vigorous, and a free bearer. Lookie's Perfection is also a good Cucumber, not quite so long as Telegraph, but very free bearing; the fruits are dark green in colour. On the whole, either of these will satisfy the amateur grower.—E. H.

### TOWN GARDENING.

*Carnations from Seed.*—Growing Carnations from seed is the most fascinating of all ways of cultivating these popular flowers, and may be carried out in the town garden which does not even boast of a cold frame. The Carnation is quite hardy, and therefore may be grown out of doors without shelter of any kind. Now is the time to sow seed, which may be done either in pots, pans, or boxes. A large shallow box is perhaps the most convenient. Make a few holes in the bottom for drainage, cover each with a piece of crock, and line the bottom of the box with rough turfy soil or moss; in fact, any rough material will do; then fill almost to the top with finely-sifted light sandy soil. Make it moderately firm, flat, and even; sow the seeds, then cover with a very slight sprinkling of the same soil, or even sand will do. The seeds are small and must only be lightly covered. Place a piece of glass on the top of the box, and put this in a shady part of the garden; remove the glass every morning, wipe it dry, and then replace it. As soon as the seedlings show through the soil the glass may be removed. Very little water will be needed for some time after sowing. If the weather is warm the soil should be lightly sprayed over with a syringe every day, just sufficient to keep it moist. When

*The Seedlings* are an inch, or even less, high they must be removed into other boxes, and there placed wider apart. Use the same soil as before, except that a little well-dried cow manure should be added to it. They must be taken up and replanted very carefully, for they are then easily damaged. Keep them in the shade for a few days after they have been pricked out in the second box, but in a week's time they may be given a sunnier position, and then in the course of another week or so they may be placed in full sun. If the seedlings are placed about 3 inches apart in the second box they will have room to develop, and may remain there until they are planted out permanently in the border where they are to flower. They must, of course, be carefully attended to in the matter of watering, and as they grow they will need a fair amount of water. They will quickly develop if in suitable soil and carefully looked after, and in the course of six weeks or so will probably be ready for planting out in the border where they are to bloom the following year.

*The Border* should be thoroughly prepared by deep digging and enriching with well-decayed manure. If the soil is at all heavy, some leaf-soil and road scrapings should be added to it. The plants should be put out at least 18 inches apart, for under good cultivation they make rapid progress and develop into large plants. By planting them early they will be firmly established before winter sets in, and in the following summer will produce an abundance of flowers. Carnations grown from seed flower much more freely than those raised from layers, and if seed is obtained from a good source, many of the flowers will be equal in size and colouring to named varieties; in fact, all the best seed is saved from named varieties. Of course, there will be a certain number of single flowers, but only a small percentage. If one wishes to increase any particular sort, this can easily be done when flowering is over by layering. Growing Carnations from seed may be most successfully carried out by those with small town gardens, and few other ways of gardening give greater delight.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**D**AHLIA TUBERS, which were removed from their winter quarters and given a gentle bottom-heat, will have made a number of growths suitable for cuttings. These should be taken with a small portion of the tuber attached. Dahlias propagated from cuttings make better plants, and are preferred to those obtained by dividing up the old tubers. It is best to discard the very long, sappy growths, and choose the short-jointed ones for cuttings. Insert these singly in small pots filled with sandy soil, and place them in bottom-heat to make roots. When rooted, gradually harden off, and as soon as the small pots are filled with roots, they should be repotted into 5-inch pots, using a compost consisting of two parts loam and one part leaf-mould. After potting they will be benefited by standing over a slight bottom-heat. The atmosphere of the house should be cool. In May remove to cold frames, keeping them as hardy as possible, taking care to protect them from injury by late frosts, ready for planting out in June.

*THE BLUE SALVIA* (S. PATENS), also placed in gentle heat a few weeks since, will by now have produced numbers of growths suitable for cuttings. These should be propagated in quantity now; 3-inch pots, filled with any light sandy soil, are large enough for this purpose. Six cuttings may be dibbled round the edges of the pots. Give a good watering, and place in a propagating case or hot-bed. They will be nicely rooted in about ten days, and should then be potted up singly and returned to the propagating frame for a few days. Afterwards gradually harden off. Pinch the tips to encourage a bushy plant. *Salvia patens* is one of the easiest plants to propagate, and of all the half-hardy species it is the most brilliant. In some districts, especially on light sandy soils, it frequently survives the winter in the open border, but it will repay a little extra care taken to preserve it by the extra quantity of bloom it gives.

*GLADIOLUS.*—Many good forms can now be purchased cheaply. For brightening the herbaceous border they are exceedingly valuable, and should be planted freely in bold masses.

*PRUNING EVERGREENS.*—Now that all danger from very severe frosts is passed, any evergreen shrubs that need pruning or cutting back may be attended to. Common Laurels will stand any amount of cutting back. Any that have grown too large and become leggy may be sawn off within 1 foot of the ground. These will look bare for only a few weeks, as they will start growing from the old wood and form compact bushes in one season. This treatment may also be applied to *Rhododendron ponticum* without injuring it in the least. Portugal Laurels will not stand such severe treatment, but these are easily kept within bounds by cutting back the strong shoots each year. In

*PRUNING SPECIMEN HOLLIES*, green or variegated, great care and judgment are required. All strong shoots should be cut back with a knife, as their character is lost altogether if closely clipped. G. D. DAVISON.

*Westwick Gardens, Norwich.*

### ORCHIDS.

*DENDROBIUM PHALANOPSIS SCHRÖDERIANA.*—This beautiful species and its varieties *D. P. hololeuca*, *D. P. Miss Louisa Dean*, *D. P. high-buryensis*, *D. P. exquisita*, &c., have begun to make new growths, and as soon as the young roots appear at the base of them special attention should be given to repotting or resurfacing with new material, as the case may be. It is not advisable to disturb the plants which were

repotted last season unless the soil is bad, but the old material should be picked out carefully from between the roots and replaced with living heads of sphagnum moss and fibrous peat. Before repotting it is advisable to select shallow pans of a suitable size, and have the wire handles fixed to them ready for use if it is intended to hang them up. *D. Phalanopsis* may also be grown in small pots on the stage if the structure in which they are to be grown is a low one. The chief point to bear in mind is to grow them near the roof-glass, so that they may obtain all the light procurable. It is only necessary to shade these plants during the growing season for about three hours a day when the sun is at its hottest, providing there is an abundance of atmospheric moisture inside the house. The best pans to use are those without side holes, in which a few crocks should be placed at the bottom for drainage. Then place the plant in such a position that the young growth is level with the rim, and secure it by tying the pseudo-bulbs to the wire handles. Work in carefully a mixture of two parts good fibrous peat to one part chopped sphagnum, freely intermixed with finely-broken crock and coarse silver sand, between and about the roots to ensure good drainage, which is a very important point, and prick a few living heads of sphagnum in the surface. If pots are used, small ones should be selected. Half fill them with crock drainage, and the plant should be secured firmly to a stake. In each case the potting should be moderately firm. For some time the newly-potted plants must be watered carefully at the root, for if the compost is kept too wet the tender roots go black instead of entering the soil. This applies to practically all pseudo-bulbous *Orobanchids*. When the roots take a good hold of the compost, sufficient water should be given to wet the latter through whenever it becomes at all dry. The plants should be syringed at least twice a day—morning and afternoon—when the conditions outside are favourable. During the growing season this *Orobanchid* requires plenty of heat and atmospheric moisture, and to be suspended from the roof in an ordinary plant stove. Tepid soft water should always be used if possible.

For decorative purposes *D. Phalanopsis* is the most useful of all *Dendrobiums*. The flowers are borne on an inflorescence, and if the plant is grown successfully as many as fifteen to twenty flowers are obtainable. At Chardwar we grow about 400 plants of this beautiful species, which give a fine display of bloom from the end of August to December. I strongly recommend them to all interested in *Orobanchids* who are living in districts free from fogs. Imported plants are obtainable from most nurseries at very little cost, and, should any be obtained now, they are best placed in pans or pots filled with crocks until the young growth begins to root, when they should be potted as advised above. The crocks are best kept in a moist condition, and the plants syringed frequently. *Dendrobium superbiens* and *D. bigibbum* are allied to the above species, and require exactly the same treatment.

W. H. PAGE.

*Chardwar, Bourton-on-the-Water, Gloucester.*

### FRUIT GARDEN.

*CHERRIES.*—Slight protection from frost might with advantage be given to Cherry trees on a warm wall, as in that position the flowers open very early in the season and are liable to be damaged on frosty nights. A make-shift protection of a single or two-ply herring net hung from the coping of the wall and kept away from the trees by poles will afford ample protection. If the trees are showing a great wealth of blossom they should be thinned out before they expand, breaking them off with the finger and thumb; trees that are crowded with blossom invariably carry a smaller crop of fruit than those more sparsely provided with fruit-buds. The flowers of wall Pears will also soon be open, and the same



means should be taken to protect them until all danger from injury by frost is past. Pyramids and bushes of small dimensions can be protected by means of branches of Spruce Fir stuck in firmly round the trees, over which a slight covering of tiffany can be spread when the frost promises to be unusually severe, but thick covering should not be kept over the trees for any length of time. Pea-sticks, if well furnished with small twigs, will in themselves greatly assist in warding off the effects of spring frosts, besides breaking the force of cold easterly winds.

**WASHING TREES.**—Before the trees actually bloom it is a good practice to spray them with an insecticide, which will keep them free from insects until the flowers have set. Preventive measures are by far the cheapest, as, if aphides are not destroyed early in the season, the growth of the trees is crippled, and this makes a difference in their condition the entire season. Paris green applied by means of a spray-pump in the proportion of 1oz. to sixteen gallons of water, and the operation repeated again as soon as the fruit is set will, if not entirely successful, at least go a long way towards the destruction of many of our fruit-tree pests, and secure better crops of fruit.

**GRAPES.**—Constant attention is now necessary in the vineries with the tying and stopping of the young shoots and thinning of the bunches. Cold currents of air must not be admitted. Allow the temperature to rise considerably with sun-heat, maintaining an equable atmospheric moisture. In the earliest houses, where the fruit is swelling liberal applications of liquid manure will be required, as ill-nourished Vines become liable to attacks of red spider and other pests.

**CUCUMBERS.**—The increased sun-heat will be of great advantage in permitting the use of higher temperatures and a greater amount of atmospheric moisture, conditions that are favourable to the production of Cucumbers. As the young plants come into bearing the old ones and beds should be cleared away, and the houses got ready for successional crops. Let the fruits be well thinned until the plants are established and capable of carrying a full crop. Remove growths not needed for extension, doing this weekly, so as not to remove much foliage at one time. The high temperatures will call for frequent damping of the paths and other surfaces. Warm and weak liquid manure should be given to plants in full bearing, together with top-dressings of light fibrous loam and artificial manures when the roots appear on the surface of the soil.

THOMAS WILSON.

Glamis Castle Gardens, Glamis, N.B.

### KITCHEN GARDEN.

**PEAS.**—Sowings of approved varieties of mid-season Peas can soon be made. Duke of Albany is a favourite here, and Prestige, which, if sown the same time as Duke of Albany, is a close succession. I find it a good plan to sow an occasional row of an early variety such as William I. or Gradus, which is often useful in avoiding a break in the supply. Do not sow thickly, though wrinkled varieties need sowing a little thicker than the round sorts. Peas that are through the ground should have a ridge of soil drawn up on each side as a protection against wind. Sticking may be done, which also helps as a protection. Mice and birds are sometimes troublesome to young Peas. Wire Pea-guards should be used, or pliable sticks bent in the shape of a half-hoop placed firmly every 6 feet or so in the ground, and several strands of cotton or fine string about 2 inches apart, fastened to the sticks, will baffle the birds, but mice must be trapped. Nothing, however, beats a good cat trained to work in the garden for this purpose.

**SPINACH.**—By making sowings of Summer or Victoria Improved Spinach at the same time as Peas, an easy succession is assured. Winter Spinach is now growing freely. Stir the soil

frequently between the rows when the weather permits.

**DWARF BEANS.**—The ground is too cold and wet yet for sowing Dwarf Beans out of doors. Beans make a good successional crop to Potatoes or Asparagus that have been forced in pits. Several days may be gained by sowing seeds in small pots, so as to have them nicely in rough leaf for transplanting into the pits as they are cleared of Potatoes. No Plus Ultra is the best variety for this purpose. Keep the syringe going well among Beans in forcing houses or heated pits. Pay attention to ventilation, especially in frames, as Bean-leaves scorch very quickly; support the growths with twigs. Some varieties of forcing Beans get very leggy, but Veitch's Superb Early Forcing has a decided advantage in this respect over many varieties, in that its growth requires no support, and for a small-growing Bean it is very productive.

**CELERY.**—Any Celery remaining in the ground should be lifted without delay and laid in under a north wall. By so doing the ground is free for another crop and the Celery is cneoked from running to seed, which very often happens at this time of the year. The ground vacated by Celery will not require manure for a following crop; careful digging to make the surface of the ground even will be sufficient. After Celery the ground is very suitable for Onions or other root crops. The main crop of Celery should now be sown. Sow in boxes as recommended for the earlier sowing, place in a gentle warmth until germinated, then gradually harden before pricking out. Solid White is no doubt the best white variety. Of pink varieties Standard Bearer is a big-growing variety, but it has not stood the winter—an exceptionally wet one—with me so well as Sulham Prize Pink, which is a more compact and solid grower. See that a heap of well-decayed manure is ready for placing in the bottom of the Celery trenches when they are made.

Bryanston Gardens, Blandford. J. JACQUES

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**BLUE HYDRANGEAS (J. R.).**—Few subjects have aroused more controversy than the production of blue flowers on the Hydrangea, for in some districts where planted out of doors the predominant colour is blue, while in others the blossoms are wholly pink. The change is then put down to the differences in the chemical qualities of the soil. That the presence of iron in the soil changes the Hydrangea flowers blue is an oft-expressed opinion, and by mixing iron refuse from the blacksmith's forge with the soil in which the plants are potted some cultivators succeed in obtaining flowers of a beautiful blue tint. Perhaps the greatest measure of success has been obtained by watering the plants with alum water, but even then that beautiful blue

to be seen occasionally out of doors is not always obtained. The alum should be crushed and dissolved in hot water to the extent of 1oz. of alum to a gallon of water. This mixture must be given just as the flower-trusses show, watering them with it at intervals of eight or ten days, and discontinuing it when the flowers begin to open. It must not be applied when the roots are dry.

**VIOLET LEAVES INJURED (J. L. D.).**—The plant you sent is well rooted and well grown. We can find no trace of disease or red spider. The injury, we think, has been caused by frost or fog, or, perhaps, by both. This is by no means an infrequent occurrence. Confined as the plants are in frames, the foliage, even under the most careful system of culture, becomes tender and easily injured, and your plants having been grown, as you say, in a shady position, are extra succulent, and, therefore, more susceptible to injury from this cause. No doubt the deformity of the flowers and the loss of perfume are caused by the damage to the foliage. Now that the days are lengthening, and the sun has greater power, the plants ought soon to improve. We should pick off the worst of the leaves. Stir the soil between the plants, and expose them to all the sunlight and air possible whilst the weather is warm. The best means of preventing injury from this cause is to grow the plants in a fairly open position through the summer, giving them plenty of room (at least 2 feet apart each way). This is the time the foundation of the plant is laid; by attending to this, and keeping the plants clean of spider, and the runners out off, your trouble will no doubt disappear.

**GROWING VIOLETS (K. K. T.).**—The plants will grow and flower freely in any ordinary garden soil. A free addition of leaf-soil is an advantage, especially to heavy soils. If your soil is light, then dig in some well-decayed cow manure. In summer, while the plants are making their growth, a shady or partially-shaded spot is best. To maintain a supply during winter plants must be lifted in September and planted in frames. Violets should be propagated every year. A certain number of plants should be reserved for stock purposes; allow them to form runners, which become rooted in the ground. Sever from the parent plants in summer as many as are required, and transplant to properly-prepared beds. New plantations should be made in September. Another method is to divide the old plants in April or May, selecting the young crowns and throwing away the old ones. Plant them out in good soil. To have Violets in winter lift plants from the open, and plant in frames in a sunny position. The frames must be partially filled with stable litter and leaves. About 6 inches of soil is necessary in which to plant. Keep the frame close for a week or so after planting, but afterwards air must be freely admitted, except during cold weather.

**JAPANESE IRISES (F. M. B.).**—One of the essential conditions to the success of Iris laevigata is root moisture, or, failing this, rich soil and partial shade. In full sun the blossoms do not last so long as when under partial shade. In a garden where the natural soil is heavy clay it is best to make special provision for the plants, and an ideal bed could be arranged on the following lines: If possible, select a position where the distant shade from tall trees would screen the plants from the mid-day sun. Take out the natural soil of clay to about 20 inches in depth, put in 6 inches of drainage, covering with rough material. Then fill with a mixture of rough peat, leaf-mould, and loam in equal parts, and one-third well-decayed horse manure, mixing all together first. If you were able to saturate the bed once or twice weekly you would succeed. These Irises dislike being submerged during winter; in swampy or clayey ground they are best planted 1 foot or more above the water level in prepared soil. While they are moisture loving, stagnation and winter submersion of the crowns

are often attended with fatal results. Early April is a splendid time for planting, and from April to the end of August a system of semi-saturation should be maintained.

**POLYGONUM BALDSCHUANICUM** (Mrs. Scott-Elliott).—You do not say what position the plant is in, so we are unable to say whether it is good or bad. This plant grows well if planted on the shady side of an evergreen, as, for instance, Cupressus, the shoots being allowed to clamber over the tree. It may also be trained over rustic poles. It seems to prefer its roots being planted in the shade.

**WINTER FLOWERS** (C. S. G.).—Plants to bloom in the open from the beginning of November to the end of February are not very numerous. There are the Christmas Rose, the Lenten Rose, *Daphne Mezereum* (shrub), *Jasminum primulinum* (shrub), *Chimonanthus* (shrub), Witch Hazels (shrub), *Forsythia suspensa* (shrub), *Garrya elliptica* (shrub), *Erica carnea*, *E. mediterranea* hybrida, *Iris alata*, *I. unguicularis* (stylous), *I. reticulata*, Snowdrop, Scilla, Winter Aconite, *Chionodoxa Luciliae*, Crocus, and perhaps one or two of the earliest Daffodils.

**SHADED GARDEN** (Subscriber).—If you want a Rose for the wall you might try *Reine Marie Henriette* (red), but Roses rarely grow well unless they are planted in a more or less sunny place. More suitable climbers are *Jasminum nudiflorum* (yellow flowers, winter), *Forsythia suspensa* (yellow flowers, winter), *Jasminum officinale* (white flowers, summer), Dutch Honeysuckle, Winter Sweet (*Chimonanthus*, brownish flowers, winter), *Pyrus japonica* (red flowers, spring), Ivy, and *Ampelopsis*. Some of the best hardy plants for your garden are Japanese Anemone, Day Lily (*Homocallis*), scarlet *Lobelia*, *Aquilegia*, German Iris, *Lilium candidum*, *L. umbellatum*, *L. speciosum*, *Helianthus* Miss Mellich, and bulbs such as *Scillas*, Snowdrops, Tulips, Daffodils, and *Galtonia candicans* (white flowers, autumn). Guano would be a suitable fertiliser.

**LAYING OUT GARDENS** (Ebor).—The plan as proposed will answer very well. To act as a screen *Picea excelsa* or *Abies nordmanniana* should be planted. They are both handsome evergreens, and to obtain immediate effect should be planted rather close together. As they get larger alternate ones might be cut out. The trees for use near the stable may be of a more common kind, such as Ash, Plane, or Poplar; but if smaller ones are desired there is the Mountain Ash, Laburnum, or Lawson Cypress (*Cupressus lawsoniana*); the latter is evergreen and makes a good hedge. A selection of shrubs for dividing the lawn from the kitchen garden should include *Berberis Darwini*, *Cytisus albus*, *Olearia Haasti*, *Forsythia intermedia*, *Laurustinus*, and *Rhododendrons*. For the wooden palings many plants might be selected, among which the most suitable are *Jasminum nudiflorum* and *J. officinale*, *Prunus triloba*, *Calycanthus florida*, *Chimonanthus fragrans*, or even fruit trees. These would require to be trained. If climbers are wanted there is the Virginian Creeper and small-leaved Ivies. For the west wall of the house use *Ampelopsis Veitchii*, *Clematis montana* and *C. Jackmani*, small-leaved Ivy, or climbing Roses; and for the front *Wistaria chinensis* and *Craegus Pyracantha*.

**COLOURS OF VARIOUS HERBACEOUS PHLOX** (W. M.).—Of the list you submit there are four varieties which we fail to trace in any catalogue. Of the others in the list we append colour and approximate height: Rachel, carmine-pink, 3 feet; Champs Elysées, purple, 3½ feet; Amphytroon, lilac and white, 3 feet; Soleilrou, carmine, 2 feet; Eugene Danzanvilliers, ray lilac, white eye, 3 feet.

**FRENCH MARGOLDS FOR A BED** (F. A. Sturge).—Reference to any good nurseryman's catalogue will give an idea as to the best and most suitable varieties needed. There are many strains and varieties with flowers of various shades of yellow, orange, and brown, and each nurseryman has his own selection and names. Among the best are: Gold Striped, Self Golden, Dwarf Mixed (each 1 foot high); and Gold Edged, Self Golden, Lemon Yellow, and Spotted (bright yellow, blotched crimson), each about 6 inches high. With reference to arrangement, it is not stated what shape the bed is in which they are to be planted.

If this is round the centre might be filled with one of the taller kinds, with rings of the dwarfier sorts planted round; or the bed might be arranged with a group in the centre, and have wedge-shaped groups of various kinds radiating from it to the edge.

**GOURD** (Bridget Penney).—The plant is a native of North America, and belongs to the Gourd family or Cucurbitaceae. It is a very free-growing climber, and does best in the warmer and more southern counties, and is well adapted for covering trellis-work and rustic arches in warm positions. The leaves are of good size and deeply lobed, while the flowers are small and of a greenish white shade, succeeded by prickly fruits somewhat larger than a Walnut. It requires to be raised in heat, and the seeds often take a long time to germinate. Plants should be grown on in heat till all danger of frost is passed, when they should be gradually hardened off and put out in their selected positions in June. The names of the shrubs in the coloured plate mentioned are: *Daphne Mezereum* var. *autumnalis*, and *Cydonia japonica* var. *Moerhousii*.

## THE GREENHOUSE.

**SEEDLINGS IN FRAME** (S. C.).—You made a mistake in mixing hay with the manure. Failing the leaves, which are not necessary to the making of a hot-bed (they make the heat more regular and lasting), you should have used the manure alone. You might improve matters by placing more manure around the frame. Take off 1 inch or 2 inches of soil, so that the latter is not more than 3 inches deep. You will find a night temperature of 50° quite sufficient. The seedlings certainly ought to have a little air when the weather is bright and mild. Close the frame early in the afternoon, so as to take advantage of the sun-heat. Syringe the plants when you close the frame. You will probably moisten the soil sufficiently by syringing without further watering. You must ventilate carefully; do not give air on cold days, and only in the morning for an hour or so in dull, mild weather.

**HEATING A SMALL GREENHOUSE** (E. L. R.).—To heat a greenhouse, presumably a lean to, but this is not stated, 14 feet by 7 feet, that is, sufficiently thoroughly to exclude frost in winter and otherwise maintain a pleasant temperature of from 55° to 60°, needs a boiler with a couple of 4-inch pipes, a flow and a return fixed along the front of the house, beside the path or alley. The boiler should be fixed in one or other of the end walls of the house, with the furnace door outside, a small cover or shed being erected over the stove-hole to protect the furnace from wind and the fuel from rain. There are numerous heating apparatus of this description, such as the Stourbridge, the Loughborough, Invincible, patent greenhouse, and others, particulars of which and prices can be obtained of the vendors. Also there is the gas or oil-heated apparatus, such as Ripplingill's Albion, the Empress, the Hygienic Heater, and others excellent of their kind, and simple, but with, of course, much less heating power than is furnished by a proper furnace-boiler with coal or coke fuel. The cheapest may not be the most efficient.

**IRISES** (M. H. L.).—You will be able to grow the dwarf Irises to perfection in a cold greenhouse, and by growing them there, and some of the hardier ones out of doors, you would be able to have some Irises in flower during many months of the year. They require no heat at all; during frosty and windy weather in winter you must keep the house closed, but otherwise give them all the air possible. Some of the best are *Iris reticulata*, *Histrio*, *histrioides*, *persica*, *sindjarensis*, *Danfordia*, and *bakeriana*. These, if potted and brought into the house at different times, would give you a long succession of bloom in the spring. Then out of doors in June you might have the Flag Irises, of which there are now many beautiful forms, and the bulbous Spanish Irises; these would grow in your garden, or you might grow the latter in pots and pans in the greenhouse, provided you give them fresh air day and night. Then to follow the Flags and the Spanish Irises you could have the beautiful English Irises out of doors. You might also try the Japanese Iris outside. You would make the soil more suitable for the Spanish and English sorts by mixing plenty of sand with

it at planting time near the bulbs. Then in winter you would be able to have a few blooms of *I. alata* and *I. stylous*, two of the earliest to flower. Even out of doors the latter is often in flower in December.

**ACACIA DEALBATA** (E. H.).—Plants of this Acacia raised from seed are much longer in coming in to flower than are plants raised from cuttings. It is by cuttings that propagation generally takes place, hence the plants you have seen from France are more bushy and bloom much earlier. To propagate from cuttings take off young tops of shoots 3 inches long now, and set them thickly in 5-inch pots filled with a sharp, sandy soil, the surface being all sand. After watering either put them into a close, heated frame, in which a little moisture is generated, or cover each pot up with a bell-glass and shade in the daytime. You would find your cuttings root in several weeks, and thus may grow on your own sturdy plants. Whether grafting is practised on the Continent or not is uncertain; possibly shoots are grafted on seedlings of the same species.

**LEAVES INJURED** (Twelve Years' Reader).—There is nothing in the specimens sent to account for their condition, and the trouble must be a local one. We presume you have used the water from the new galvanised tank, though you do not actually say so. If that was the case, you made a great mistake which may be answerable for the damage. Before plants were watered from it the tank should have been filled with water and allowed to remain so for twenty-four hours, and then emptied, this being repeated two or three times before any of the water was given to the plants. The painting of the pipes, again, may have affected the foliage, as instances of this have come under our notice before now. The term "flat black painted" we do not know, but have always used lamp-black and linseed oil, with a little turpentine to cause it to dry quickly. This mixture has never affected even the tenderest foliage in any degree.

## TREES AND SHRUBS.

**SHRUBS IN TOWN GARDEN** (Fred Davis).—As you prepared your soil well last autumn by digging and manuring, you ought to be able to grow a good selection of plants. As your soil is heavy, you would do well to mix with it such material as road scrapings, mortar rubble, or sand, so as to lighten it somewhat and make it more suitable as a rooting medium. Among hardy herbaceous plants you should grow German or Flag Irises, small-flowered Sunflowers (*Helianthus*), Michaelmas Daisies, Japanese Anemones, *Galegas*, *Delphiniums*, *Lupinus*, early-flowering *Chrysanthemums*, *Helenium striatum*, *Gladiolus*, and *Phlox*. These are all good showy perennials. Roses would probably also grow well with you, and probably Carnations if you lightened the soil as above directed. Suitable shrubs are the flowering Currant (*Ribes sanguineum*), *Berberis Darwini*, *Weigela Eva Rathke*, *Laurustinus*, *Forsythia suspensa*, *Veronica*, Almond, and Lilac. These would give you flowers throughout a long period.

**CATKIN-BEARING TREES AND SHRUBS** (T. J. Weaver).—The catkin-bearing section of trees and shrubs is a very large one, and many of them are not showy enough to warrant their inclusion as ornamental flowering subjects, the Oaks being a case in point. There are, however, many which are ornamental, and they blossom when few other things are out. One of the earliest to flower is *Garrya elliptica*. The male catkins are green, 4 inches to 6 inches long, and at their best from January to March. Early in February the Hazels are distinctly showy, the yellow catkins of *Corylus americana*, *C. Avellana* and *C. Colurna* being conspicuous. Alders are represented in January, February, and March by *Alnus cordifolia*, *firma*, *glutinosa*, *incana*, *japonica*, *maritima*, *nitida*, *oregana*, and others. The catkins of these are from 2 inches to 6 inches long, and usually yellow or tinged with red. The male forms of many of the Willows are very conspicuous, the catkins being yellow and 1½ inches to 3 inches long. The earliest to flower is *S. d. cinerea* var. *Medemii*, then comes *S. Caprea*, *daphnoides*, *discolor*, *incana*, *lanata*, and many others. The

Birches are representatives of catkin-bearers, and the species *Betula Maximowiczii*, *Ermanni*, and *ulmifolia* are specially worthy of notice. Poplars are represented by *Populus alba* and varieties; *balsamifera*, *nigra*, *tremula*, *tremuloides*, and many others. Of shrubs, the pretty, yellow-flowered *Corylopsis spicata* is worthy of mention.

**WILLOW GALLS** (*C. E. B.*).—The Willow galls you speak of are due to a species of Diptera, a small delicate-looking fly. The only way to get rid of it is to hand-pick and burn the leaves affected. You may check it by keeping your Willows syringed once a week with strong soft soap and quassa water until the end of June.

**HOLES IN HEDGES** (*Mrs. Scott*).—We have never before met with a parallel case to yours, and scarcely know what to suggest as authors of the mischief. Cats are very fond of walking along the top of a dense hedge, and would occasionally slip down and displace the small sprays. A sharp look out should be kept for cats, and in this way the mystery may be solved.

**CLIPPING HEDGES** (*D. D.*).—The bush hedge, which has been planted two and a-half years, should in the ordinary way have made good progress by now. As you think the plants are alive, we would give them another chance this summer, and as an encouragement to better growth we should fork a good dressing of well-decayed manure amongst their roots, and keep the ground about them free from weeds during summer. Now is a good time to cut the Yew and the Holly hedges into the form you desire. It will be well to shorten the top growths a little each year, as this helps to make a sturdier and more impervious hedge.

### ROSE GARDEN.

**PRUNING BOUGHT ROSES** (*Tyro, Kent*).—Ulrich Brunner (bright cerise-red), Suzanne Marie Rodocanachi (soft rose), and Tom Wood (cherry red) are Hybrid Perpetuals. When you plant these you must cut back the growths to within 2 inches to 6 inches of their base, leaving the strong ones the longest. Cut right out all the thin, weakly growths. Do not disturb the soil more than you can help when taking them out of the pots. Gloire de Dijon (creamy yellow), Mme. d'Arblay (white), and W. A. Richardson (orange-yellow) are climbing Roses. Cut down the growths of the first and last to within about 6 inches of their base. If the plant of Mme. d'Arblay is very strong, you might leave two of the stems, cutting back the others to 6 inches of the base. These two growths will give you a few flowers, and after blooming must be cut back to the base. The reason for cutting back the Roses thus is to get strong young growths from the base which will bloom next year.

**PRUNING ROSE REVE D'OR** (*M., France*).—The less this Rose is pruned the better. The cause of the deterioration in the plant is to be found at the root. Possibly the roots have reached the uncongential subsoil and new, healthy growth is arrested. Another cause may be in the too-abundant blossoming. If it were practicable, we should advise you to open a trench around the plant next autumn, taking care to keep well away from the roots. Fill this trench up with a good compost, such as three parts loam, one part well-decayed manure, and a 6-inch potful of half-inch bones to every two bushels of the compost. During the present season you can help the plant considerably by making some holes with a crowbar round about the roots. Make these holes a good depth; then pour into them, at intervals of two or three weeks, some good liquid manure made from cow manure and soot. When new growths promise, then you could gradually reduce some of the old branches. When any pruning of Réve d'Or is necessary, it should be done after the first flowering. Lay out the growths in a palmate manner, and, where the branches are too close, then cut one or two quite away. The long growths of last season especially should be retained almost their full length. The small, thin shoots springing from the main growths should be cut back to three or four eyes. Treat Bouquet d'Or in the same manner as you would Gloire de Dijon. Cut away old wood that appears worn-out, but retain all healthy, hard shoots their full length, or, at least, nearly so. In summer prune away wood not required, in order to encourage the free-growing young shoots. Lamarque must also be very sparingly pruned.

As regards Mme. Sanoy de Parabere, which is the same as Boursault Morletti, retain all well-ripened young wood, merely just removing the tips. After flowering cut some quite back to the old wood.

**BLACK SPOT ON ROSE FOLIAGE** (*N. Willan*).—As regards your query relating to black spot, we gather it has reference to plants grown outdoors, not forced plants. This black spot is frequently troublesome upon plants under glass, brought about by too much moisture in the atmosphere, especially at night. If a free circulation of air can be maintained and a little artificial warmth afforded, one may soon check the disease upon plants under glass. Upon outdoor plants it is more difficult to eradicate. The spores upon the decayed foliage remain in the soil and reappear the next season. Where this fungus has been causing trouble previously, the old foliage should be burnt and the plants dressed with cupram before and after they are pruned. To make cupram take half-a-pint of strong ammonia, add to it 4 pints of water, weigh out 10z. of carbonate of copper, wrap it up in a piece of fine copper gauze, suspend it by a copper wire in the ammonia liquor. After remaining over-night most of the copper carbonate will have dissolved, producing a bright blue liquid. For use dilute with from 9 gallons to 12 gallons of water. If your plants are syringed well with this at intervals, you should be able to keep the black spot in abeyance. As prevention is better than cure, syringe the plants before the fungus appears.

**STANDARD ROSES BUDDED ON THE STEM** (*W. M.*).—Probably the trees are of Continental origin. The French, German, and Dutch growers bud many of their Rose trees in this way. We have never found any great advantage in this method of budding; on the other hand, there is nothing that can be urged against it excepting that the Briars are usually much thinner than those used in England. Providing your trees possess plenty of fibrous roots and you are careful to plant them not more than 6 inches deep, we think you will find them grow well. You must be careful to afford the trees the support of a good stake.

### FRUIT GARDEN.

**ABSENCE OF POLLEN ON PEACH BLOSSOMS** (*R. P. R.*).—Some varieties of the Peach and Nectarine bear pollen more freely than others. Walburton Admirable is one that seldom has very much pollen, but why it should cease to have any at all this year for the first time is a difficult question to answer, especially without having some personal knowledge of the tree and the conditions under which it is growing. The only answer we can give is based on our own experience with a similar difficulty. Where a large collection of Peaches is grown it is not uncommon to find a Peach tree under glass in bloom pollenless. This is not such a serious matter when there are other trees in bloom in the same house at the same time, as other pollen can be used. The cause of this trouble is generally to be found at the roots. Either there is a deficiency of fibrous roots, or it may be, on the other hand, that the cause is to be found in the soil having become exhausted of some constituent more particularly necessary for perfect bloom formation, such as lime in one form or another. The presence of this medium in fair abundance in the soil is an absolute necessity for the successful cultivation of all stone fruit. To prevent a recurrence of this trouble, we would advise our correspondent to lift the extreme ends of the roots of his tree, say, for 2 feet or 3 feet (not too near the stem), and to plant in new soil of the right sort.

**ORANGES FROM PIPS** (*H. D'oeith*).—There is no special difficulty in growing Orange plants from pips, and we cannot understand why you have failed in the matter, having raised many ourselves in this way. The seed should be sown in clean, well-drained pots, those 5 inches in diameter being suitable. Use a soil of equal parts yellow loam and leaf-mould or peat, with a good sprinkling of silver sand. This should be pressed down moderately firm in the pot, and the seed when sown covered with about one-third of an inch of soil. Placed in a temperature of 60° to 70° and watered when necessary, the young plants will not be long in making their appearance.

### KITCHEN GARDEN.

**PREPARING MANURE FOR A HOT-BED** (*Reader*).—Allow the manure to ferment only so far as to permit of the foul gases to escape. On the other hand, there is danger that, if over-fermentation is permitted, the manure will rot too soon, and consequently most of the heat be sacrificed. It would take a considerable time to collect a sufficient quantity of manure to make up even a medium-sized hot-bed from the manure of two horses. It will be much better to spread out the manure from day to day, say, 1 foot thick, until enough has been collected rather than to put it up bit by bit daily for immediate fermentation. Where the convenience is available, it is a good plan to spread it out on the floor of a shed about 1 foot thick, where it can be protected from rain. When sufficient has been collected, see that the manure is moderately moist before it is put up in a heap to ferment. Should it happen to be on the dry side, it must be sprinkled over with water. In ten days' time it should be spread out for about three hours. Sprinkle again with water if necessary. In eight days' time it should again be opened out and allowed to cool for a few hours, when it will be in a fit condition to make up into a hot-bed.

**CILIRIAC** (*D. M. Ross*).—The roots of Celeries enclosed doubtless were planted correctly, and the soil your plants were grown in appears suitable. We think the fault must be placed to the seedlings. The roots lack size, and we think you could not have sown early enough, for a long season's growth is required. We have seen quite as large plants as yours at the time of planting, and if this were done in May would give nearly six months' growth. You may have sown late or too close together, the result being small, weak plants that did not have strength or time to develop. To get large roots we sow thinly under glass in February or March in pans in a warm house or frame. The seedlings are kept near the glass, and when large enough to handle are pricked off singly into boxes of rich soil, made firm, 3 inches apart. When the plants are growing freely (end of April) they are removed to cold frames, and planted out towards the end of May. We dig the ground deeply, manuring liberally in the winter. Rather deep drills are drawn at the planting, but food will not be required till the plants are bulbing freely, say, in August or September, and at that time side growths or offsets should be removed. It is essential to get a good stock. There are half-a-dozen good stocks, and Vilmorin's is one of the best.

**ASPARAGUS UNSATISFACTORY** (*D. D.*).—It is a great mistake to plant old Asparagus plants. We prefer to plant one-year-old roots, but if you are anxious to have your bed in bearing as early as you can it will be quite safe to plant two-year-old roots, but certainly not older. Have your beds quite ready before the roots are delivered, and do not expose them to the air a moment longer than you can help before they are planted.

### MISCELLANEOUS.

**"MALLEE SCRUB"** (*M. Russell Cotes*).—We cannot trace the term "Mallee Scrub," but the species of *Eucalyptus* which is hardest in this country is *E. Gunnii*.

**GRUB ON SCOTCH SPRUCE** (*D. H. Cotes*).—The shoots of your Spruce have not been attacked by a grub, but I believe by the Spruce gall aphid; but the galls were not of the usual form, and were so old that I cannot be quite sure. Could you send up some that are fresher; if you cannot now, and the attack is again made this year, you will be able soon to find some, when I will gladly examine them. If it be the gall aphid that is the culprit, the only effectual remedy that I know is to cut off the injured shoots and burn them; but it is no use cutting off the old brown ones, as the insects have long deserted them.—G. S. S.

**GOAT MOON** (*Rutland*).—The "creature" you found in your herbaceous border is the caterpillar of the goat moth (*Cossus ligniperda*), one of our largest British insects. What it was doing in your border I cannot say. It certainly would not do any damage there. These caterpillars live in the stems of Willows and Poplars, and at times in those of other trees. When they are full-grown they generally leave the tunnels they have made and form a sort of cocoon just outside the entrance, in which they become chrysalids. Perhaps where you found it was near the stem of some tree; if not, I suppose that it had been disturbed and was seeking some suitable place in which to undergo its transformation. From its size I expect it was full-grown.—G. S. S.

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DOROTHY TENNANT, puce-violet or rosy mauve
LOTTIE ECKFORD, bluish-white self, edged bluish mauve
ADMIRATION, delicate shade of rosy-mauve or lavender.

12 Packets, 50 seeds in each, for 1s. 6d. post paid.

### COLLECTION No. 1.

Twelve old favourites.

DUCHESS OF SUTHERLAND, pearly-white, delicately suffused pink
HON. F. BOUVERIE, beautiful coral-pink, charming
CAPTIVATION, rosy-purple self, a charming variety
VENUS, salmon-buff, shaded rosy-pink
LADY MARY ORMSBY-GORE, pale buff, overlaid delicate pink
TRIUMPH, bright orange-pink standards, wings purplish
AURORA, flaked and striped salmon on white ground
CAPTAIN OF THE BLUES, bright purple-blue, wings lighter
LADY NINA BALFOUR, delicate mauve, shaded dove-grey
HER MAJESTY, rich rosy-crimson self, of fine form
MRS. ECKFORD, large, handsome, pale primrose
LADY SKELMERSDALE, rosy-lilac, a distinct variety

12 Packets, 50 Seeds in each, for 1s., post paid.

With Collections 2, 3 and 4 we add a Packet of Ornamental Grass or Gypsophila.

SPECIAL PRICE for		
Collections 1, 2, 3, and 4	6s.	
" 2, 3, and 4	5s.	
" 3 and 4	4s.	
" 2 and 3	3s.	
" 1 and 2	2s.	

All the seed in the above Collections is of the new harvest, having been grown on our Essex seed farms, and carefully hand-picked.

Our book, "HOW TO GROW AND SHOW THE FINEST SWEET PEAS," given gratis with all orders.

Rowntree's beautifully illustrated Manual of Selected Pedigree Seeds will be sent on receipt of 3d. to cover the actual cost of postage, which may be deducted from first order.

## ROWNTREE BROS., F.R.H.S.

30, GREAT ST. HELEN'S, LONDON, E.C.1

AND AT

**OHELMSFORD, ESSEX.**



**BAMBOOS FLOWERING (Ireland).**—Once Bamboos have reached the flowering stage nothing can be done to save them, for though they may linger on for a season or two, they are always shabby and ultimately die. This flowering and subsequent dying of Bamboos is general all over the country.

**NAMES OF PLANTS.**—*W. J. T.*—The name of the flowering plant is *Billbergia nutans*. It is a native of Brazil, and was introduced as long ago as 1868, but it is by no means a common plant, and we have looked for it in vain in several catalogues. On the Continent this class of plants (Bromeliads) is far more grown than in this country. The enclosed leaves belong to *Calathea* (*Maranta*) *kerchoviana*, one of the most beautifully marked of its class, and an exceedingly pretty stove plant. It may be met with in catalogues quoted at about 3s. 6d. each.—*G. H. L.*—The specimen was too poor to name. If it comes with two or three blooms on a stem it is a variety of *Narcissus tridymus*.—*W. L. F.*—The Satin Flower (*Slayrinchium grandiflorum*).—*T. Robinson*.—*Picus repens*.—*V. S. W.*—1, *Erica carnea* var. *alba*; 2 and 3, *E. carnea*; 4, *Primula denticulata*; 5, *Juniperus* or *Cupressus* sp. (specimen too immature to name).—*T. Kelsey*.—*Trifolium minus*, usually accepted as Shamrock.—*Pennsylv.*—The plant is *Phoenix sylvestris*; *P. dactylifera* is the date-bearing Palm.—*Delight*.—*Helleborus foetidus*.—*Purshdar*.—Pinnate leaf is that of *Galega officinalis*; the other is probably *Ranunculus* sp. or *Anemone*.—*W. H. Miles*.—*Stanhopia eburnea*.

**NAMES OF FRUIT.**—*W. J. McCracken*.—Apple Annie Elizabeth.

## LATE NOTES.

**Royal National Tulip Society.**—The southern section of the above society will hold their annual show on Wednesday, May 23, 1906, at the gardens of the Royal Botanic Society, Regent's Park, N.W.—*W. PETERS, Secretary, Hartington Grove, Cambridge.*

**Royal Botanic Society.**—A meeting was summoned recently for the purpose of taking a poll on the proposal of the council to alter the by-laws, to increase the annual subscription of Fellows from 2 guineas to 3 guineas, and to increase the life subscription from 25 guineas to 30 guineas. The ballot resulted as follows: For the increased subscription, 195; against, 96; majority for, 99. As a three-fourths majority is needed the motion was declared lost.

**Reading and District Gardeners Association.**—This, one of the most enterprising gardeners' associations in the country, has issued a most satisfactory annual report, from which we make the following extracts: "The membership on January 1, 1905, was 263, and although several members, chiefly through removal from the district, have ceased their connexion with the association, yet at the close of the year the number is 289. The principal and most interesting event of the year was, without doubt, the members' presentation to the president. Meetings have been held throughout the year, and have been largely attended, the attendance ranging from 80 to 150. Excellent exhibits of flowers, fruit, and vegetables were made from time to time, and these added greatly to the interest of the meetings."

**High-priced Orchids.**—At a sale held last week by Messrs. Protheroe and Morris in their auction rooms, Cheapside, E.C., 1,150 guineas were paid for an *Odontoglossum*, *O. crispum pittianum*. It was bought by Messrs. Sander and Sons. Mr. Warburton gave 800 guineas for a plant of *O. crispum* F. K. Sander, and *O. crispum* Peraimmon was sold for 200 guineas.

**Presentation to a gardener.**—An interesting presentation took place recently at Eden Hall, when Mr. and Mrs. Statham were presented with a handsome silver coffee jug by the outdoor and indoor servants on the Eden Hall estate. Mr. Statham, who has been head-gardener for the last five years, is leaving to take a similar appointment at Blaisdon Hall, Gloucestershire. Mr. Statham was also the recipient of a very handsome French clock, in marble case, and purse of gold, subscribed for by the members of the Edenhall and Langwathby Floral Society and Football Club. Mr. Statham, who was mainly instrumental in starting the flower show about four years ago, has since acted as hon.

secretary and treasurer, and worked hard to make it one of the most successful shows in the neighbourhood.

**Poisoned by *Primula obconica*.**—In the current number of the *Lancet* Dr. W. H. Brown of Leeds states that a woman aged twenty-nine was recovering from an attack of influenza when she scratched her nose in smelling this plant. The nose swelled, became a deep plum-colour, and inflammation with suppuration spread to the eyelids, the forehead, and the scalp. Nothing stayed the progress of the poison, and the patient died.

## SOCIETIES.

### ROYAL BOTANIC SOCIETY.

THERE was an excellent display of spring flowers at the exhibition held by the Royal Botanic Society, in their gardens at Regent's Park, on the 21st inst.

Messrs. T. S. Ware, Limited, Fitcham, exhibited a beautiful lot of *Daffodils* and other spring flowers in great variety. Some excellent winter-flowering *Carnations* were included. Silver-gilt medal.

Messrs. William Paul and Son, Waltham Cross, showed a group of *Camelia* trees in pots that were finely flowered, and, together with *Banksian* *Roses*, made a charming display. Large silver-gilt medal.

A beautiful collection of *Narcissus* was exhibited from the bulb farm of Sir Joselyn Gore-Booth, Bart., Lisadell, Sligo. Many of the newer sorts were shown. Silver medal.

A large silver-gilt medal was awarded to Mr. John May, Gordon Nursery, St. Margaret's, Twickenham, for a group of splendidly-flowered *Cyclamen*. A new variety called *Excelsior*, rich crimson, and flowering most freely, was noteworthy.

Mr. Robert Sydenham, Birmingham, exhibited specimens of bulbs grown in moss fibre without drainage. Certificate of merit.

A certificate of merit was given to *Carnation Britannia*, a large, handsome, bright red variety from Mr. A. Smith, Enfield Highway.

Messrs. R. and G. Outhbert, Southgate, N., were awarded a large gold medal for a magnificent group of forced shrubs in flower, such as *Asalea*, *Prunus*, *Fyrus*, *Spirea*, *Lilac*, *Magnolia*, &c. The *Asalea mollis* forms were masses of rich colouring.

Messrs. Jarman and Co., Chard, were given a certificate of merit for their strain of *Cactus*-flowered *Cinerarias*.

Mr. S. Mortimer, Kewledge, Farnham, Surrey, exhibited some excellent winter-flowering *Carnations* and *Stock* All the Year Round. Silver-gilt medal.

Messrs. Barr and Sons, Covent Garden, exhibited a collection of *Daffodils* in many beautiful sorts, together with alpine flowers in variety. Large silver-gilt medal.

Messrs. Catbush and Son, Highgate, were awarded a gold medal for a large and attractive group of flowering shrubs and alpine.

Mr. George H. Sage, 71, Manor Road, Richmond, showed *Bruce's Flower Display*; and Mr. J. Williams, 4A, Oxford Road, Ealing, showed the *Rural table decoration arrangements*.

Messrs. Champion and Co., 115, City Road, E.C., exhibited their well-known ornamental tube for shrubs.

### ROYAL HORTICULTURAL SOCIETY.

#### SHOW OF COLONIAL FRUIT.

THE Royal Horticultural Society held an exhibition of Colonial fruit and other produce at their Hall, on the 22nd, 23rd, and 24th inst. Among the most interesting exhibits were those of West Indian produce in great variety shown by the West India Produce Association, and the fruits, &c., from Cape Town, Natal, and Rhodesia.

The Army and Navy Co-operative Society, Limited, Victoria Street, S.W., exhibited a varied collection of Colonial produce. Samples of Coffee, Tea, tinned fruit, Australian Honey in comb, and Barbados Sugar were very conspicuous.

The French Flint Glass Bottle Company, Limited, 617, Long Lane, E.C., exhibited patent jars and bottles for preserving fruits. They are made of clear flint glass, with patent air-tight stoppers. Many noted firms use this bottle for preserving fruits, pickles, jam, &c. It appears to be a most useful article. Full particulars may be had from Abbott Brothers, Southall, Middlesex.

The Army and Navy Auxiliary Co-operative Society, Limited, Francis Street, Westminster, exhibited a splendid lot of fruit from the Colonies. The *Kelsey* *Pine*, *Sea Eagle* *Peaches*, and *Pears* from Cape Colony were very fine.

The collection of *Oranges* and *Lemons* from Messrs. T. Rivers and Son, Sawbridgeworth, described in our last issue, was still on view.

Messrs. H. C. Collison, Limited, 36, Mark Lane, E.C., exhibited a large collection of bottled wines made in Cape Town from Grapes grown in Cape Colony. Brandy and Liqueurs were also on view.

The Van Rhyn Wine and Spirit Company of Cape Town (London agent, Mr. Treblint, Broad Street House, New Broad Street, E.C.) also exhibited wines.

Handsome Calabash Pipes, made at Cape Town from South African produce, were shown by Mr. F. Fraser, 144, Longmarket Street, Cape Town. They are a vegetable production, and are made by skilled workers from the raw material. They are said to be smoked by many who served in the South African campaign.

Specimens of *Ramie* fibre were shown from the *Ramie* Mills, Staines, England. *Ramie* fibre is said to be far stronger than Cotton, Jute, Flax, or Hemp. It can be produced where Cotton cannot, and Mr. Edwards-Radcliffe of Staines is desirous of encouraging the cultivation of *Ramie* in the Colonies.

The Agent-General for Natal, 36, Victoria Street, S.W., made an exhibit of fruit from Natal. It consisted chiefly of Apples, Pears (exceptionally good), Pine-apples, Oranges, Plums, Mangoes, and Avocado Pears. There were some splendid fruits of the *Klaffer* Pear.

Messrs. Blatter and Co., 84, Flind Street, Cape Town, exhibited Calabash Pipes.

South African Tobacco and Cigars were shown by J. H. Stark and Co., Cape Town.

There was an exhibit of bottled fruit from Cape Colony. Some excellent dried fruits prepared by The Rhodes Fruit Farm, Limited, were on view.

Messrs. Liberty and Co., Regent Street, exhibited garden pottery.

Mr. Robert Sydenham, Tenby Street, Birmingham, exhibited *Daffodils* grown in moss fibre.

The Malta Horticultural Society exhibited samples of Malta Blood Oranges.

A number of growers in Cape Colony made a large and representative display of Cape fruit. Some of the Pears were excellent samples. Grapes, too, and some varieties of Apples were well shown. Among the Pears were many familiar sorts. The *Kelsey* *Pine* was finely shown, and there were some good dishes of *Peaches* and *Nectarines*.

Improved patent millboard fruit-packing baskets were shown by Mr. D. G. Cornwall, Warwick Gardens, Worthing. Their great advantage is that the fruit can be packed in them ready for market. When full they are marketed and sold with the fruit like pannets.

The West India Produce Association, Limited, 4, Fenchurch Buildings, E.C., exhibited a large and varied collection of West India produce, including bottled fruits, pickles, lime juice, Ginger, cigars, Tobacco, pure Cane Sugar, &c., as well as various fruits, Bananas, Oranges, Lemons, &c. Some choice Lemons, Grape Fruits, Pine-apples, and Oranges from Jamaica were on view.

Specimens of Turkish and Virginian Tobacco grown in Rhodesia were exhibited. Rhodesian cigarette Tobacco is said to equal the best Virginian. Samples of Rhodesian-grown Cotton, Maize, Rice, Wheat, and fruit were also shown.

There were on view water-colour sketches of the Victoria Falls, by Mrs. Goodwin Green, Cape Town.

Experiments during the last two years have shown that Flax can be grown in various parts of Cape Colony, and samples were exhibited in the hope that some market may be found for the straw or for properly-prepared fibre.

E. E. Fellans, Esq., Cape Town, exhibited succulent plants natives of the Colony.

The King's Acre Nursery Company, Hereford, showed a collection of excellent Apples.

Specimens of timber from Cape Colony were shown. The forests there cover an area of 550 square miles.

Mrs. Robinson, Simon's Town, exhibited an interesting collection of paintings of Cape flowers.

Mr. Charles Ayres, 118, St. George's Street, Cape Town, exhibited various fancy articles made chiefly of leaves of the Cape Silver Tree (*Leucadendron argenteum*).

Messrs. L. Rose and Co., Limited, Finsbury, E.C., exhibited samples of Rose's Lime Juice Cordial.

Mr. George H. Sage, 71, Manor Road, Richmond, showed *Bruce's Flower Display*.

\* In our report of the Royal Horticultural Society's meeting on the 20th inst. we inadvertently omitted to mention that a silver Banksian medal was awarded to the exhibit of *Daffodils* by Sir Joselyn Gore-Booth, Bart.

## OBITUARY.

### M. LE COMTE OSWALD DE KERCHOVE DE DENTERGHEM.

WE regret to learn of the death of M. le Comte Oswald de Kerchove de Denterghem, president of the Ghent Agricultural and Botanical Society. His face was familiar to all who have visited the famous Ghent Quinquennial Shows. Thus, within one year this society has had the misfortune to lose both its president and secretary.

### GEORGE GAMMIE.

By the death of Mr. George Gammie, Coldstream, Drumoak, N.B., one of the oldest gardeners in Scotland has passed away. Mr. Gammie was for many years gardener at Drum Castle, Kincardineshire, whence he retired a number of years ago, receiving from his employer, the grandfather of the present owner of Drum, a life rent of the pleasant cottage at Coldstream in which he passed the last twenty years of his life. Here he passed away quietly sitting in his chair at the great age of ninety-six.

\* The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

# THE GARDEN.

No. 1794.—VOL. LXIX.

APRIL 7, 1906.

## LATE APPLES.

**L**ATE APPLES are among the most valuable fruits at this time of year, and we are glad to be able to publish the following interesting notes on this subject by Mr. J. Duncan Pearson, Lowdham, Notts :

"Opinions vary as to whether late Apples pay the grower better than early ones, but there can be no difference of opinion as to the value of late Apples in the household. From now until the first green Gooseberries are ready fresh fruit for cooking is very scarce, and an Apple that will keep till May and retain a fair amount of flavour is remarkably useful. It has often struck me that amateurs plant far too many early and midseason sorts, and not enough late varieties. To begin with, when the early sorts are at their best, Plums, which are serious rivals, are in season. Again, most of the early Apples are very free bearers, and a few trees will produce far more than an ordinary family can consume; the residue will not keep, and it is generally impossible to sell them even if one wished to do so. After November late varieties, even if not quite ripe, are far better than overkept early or midseason ones; therefore my advice is to plant three late Apples to one early. Of the Apples under my notice, which amount to a good number, there are at the present time (March 16) not more than four cookers which are really good. These are Newton Wonder, Bramley's Seedling, Beauty of Kent, and Dumelow's Seedling (Wellington). Of these the first two will often keep good and retain a fair flavour until May. I cannot understand why Beauty of Kent is not more planted than it is, for up to the end of February it is quite one of the best-flavoured culinary Apples in cultivation. The tree is a good grower and a regular, though perhaps not heavy, bearer. My experience of many of the so-called late varieties is that they may keep up to their stated times, but lose so much of their flavour as to be almost valueless.

"Of eating Apples at the present moment quite the best is King of Tompkins' County, which was ripe in November, and is still quite fresh, plump, and with good flavour. Lord Hindlip, a rather recent introduction of the Adam's Pearmain type, was very good

up to the beginning of the month, but, having to withstand the ravages of three households, they are now, unfortunately, gone. Roundway Magnum Bonum was very good up to the end of February, slightly shrivelled in appearance, but the flesh is still juicy and of a very distinct and agreeable flavour. Good old Blenheim Orange was quite eatable only a fortnight since, and the few Cox's Orange Pippins that survived until February were at that time much better than any other variety in the fruit-room. Court Pendu Plat I do not personally care for; it is so leathery in substance, and I think that the consistency of an Apple is almost as important as the flavour. Perhaps we are too far North or our soil is too cool to ripen some of the late Russets and other late Apples which are well exhibited at the Royal Horticultural Society's meetings far later than this. Whatever the cause may be, we certainly do not get them as good as the growers further South. The following are some of the disappointing ones: Brownlee's Russet, very shrivelled; Egremont Russet, shrivelled and dry; Sturmer Pippin, greenish, unripe flavour, and quite third-rate; Duke of Devonshire, good flavour up to February, but very shrivelled now; Cornish Aromatic, good in certain seasons, but generally has a somewhat half-ripened flavour. Probably the two latter have shrivelled owing to having been gathered too early. Allen's Everlasting, as grown at Lowdham, I should pronounce uneatable. Barnack Beauty has been highly spoken of, but although I have tried it at all times, it has never been as good in quality as an ordinary cooking Apple. Perhaps these few rough notes may be of use to intending planters in the Midland and Northern Counties, for it is quite certain that many of the really good Southern Apples are no good at all in this district."

## ASPARAGUS.

(Continued from page 182.)

### HINTS ON CULTIVATION.

For the first year after planting there will be little to do except to hoe the bed frequently in order to keep down weeds. A few of the roots may die in the course of the summer; they must be noted before the "grass" is cut down, so that the plants may be made good the following spring. As soon as the foliage has decayed and ripened it should be cut down and carted away after sufficient seeds have been collected.

The second year after planting the bed will give little trouble. A layer of well-decayed manure about 2 inches or 3 inches deep should be laid over the surface of the bed early in March, and a few inches of soil from the alley thrown over the layer of manure; this will materially nourish and strengthen the plants, and also act as a mulch to prevent drought during the summer. One may confidently look forward to having a fair return for the labour the following year, and for a lifetime afterwards. In the third and subsequent years the routine of culture is much the same, the most important points being to keep the beds free from weeds and to top-dress the beds in spring as advised before. In carrying out this work as the beds get older a portion of the old surface soil must be raked down into the alleys, so that the new top-dressing may the more readily come in contact with the roots.

### CUTTING THE "GRASS."

This may be indulged in to a moderate extent in the third year by cutting all the best of the "grass" as it appears (leaving the weaker to grow) until the middle or third week in May, when cutting for that year must cease. The following year the beds will be in full profit, and the best of the "grass" may be cut until the first or second week in June, but not any later. More Asparagus beds are ruined by cutting being continued too late than from any other cause. The necessary work for the future will be to keep them free from weeds and annually to top-dress in spring, and to make sure that they are not water-logged in any way. Frost will not kill the plants, but a water-logged condition of the beds will do so very quickly.

### ARTIFICIAL MANURE.

The application of some approved stimulant is of great advantage to this crop, and ordinary salt is the one most commonly used. My experience clearly shows that nitrate of soda is the best artificial manure to use. I much prefer to give a moderate dressing twice than a heavy dressing once. The first should be given early in April, and the second at the end of May. As regards the quantity to use at a time, half-a-pound of nitrate of soda to 1 square yard of bed is ample. Where the means of staking the foliage is at hand, this should by all means be done, as the shaking of the foliage when blown by the wind is inimical to the well-being of the plant. Blanching is effected by covering the beds with light leaf-soil, Coconut fibre, or mats, but the green "grass" is now preferred as possessing much richer flavour.

To cut the "grass" a special Asparagus knife or saw should be procured. When the "grass" is 3 inches or 4 inches above the bed, then is the time to saw it off about 4 inches below the soil, but not close to the crown of the plant.

### PROTECTION.

Spring frosts often play havoc with Asparagus beds, especially during the month of April and early in May. The best protection against loss from this cause is to cut the "grass" pretty close in the afternoon, and to cover over with a bit of soil those that are just peeping above ground. If this is practised every day during the

prevalence of frost, it will reduce the loss from this cause to a minimum.

For preserving the "grass" after cutting or for sending to market, the most convenient way is to tie them up in bundles of twenty or fifty, according to size, arranging them into three qualities—best, second best, and small (for flavouring soups, &c.). If it is desired to keep the "grass" any length of time after cutting, this is easily accomplished by standing them in 1 inch of water in a shallow vessel in a cool and dark room. They may be kept fresh in this way for a matter of a week or ten days.

OWEN THOMAS.

## PRIZES FOR GARDENERS. APRIL.

### STRAWBERRIES OUT OF DOORS IN SUMMER AND AUTUMN.

- A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA

are offered for the best essays upon "How to Provide a Crop of Strawberries Out of Doors during Summer and Autumn without the Aid of Glass."

The essay (limited to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than April 30. Both amateur and professional gardeners may compete, but it is to be hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## THE EDITOR'S TABLE.

### APPLE ANNIE ELIZABETH.

Mr. Cheffins sends from Catmoe Gardens, Oakham, some fruits of Annie Elizabeth Apple, which for size, colour, and good quality have not been, in our experience, surpassed. They were remarkable for the season, and a distinct credit to the grower. Our correspondent writes: "A few fruits of Annie Elizabeth Apple, which I consider the best all-round Apple grown. It does well in this neighbourhood, and is excellent for cooking and dessert, keeping well into April. It is a pity the stalks are so short, as the fruit is likely to be blown off the tree before it is ripe."

### DOUBLE VIOLETS NEAPOLITAN AND COMTE DE BRAZZA.

We have received some of the finest Violets we have seen from Mr. F. E. Stokes, gardener to Captain Buller, The Gardens, Cokethorpe Park, Wisney, Oxon. Some of the blooms are over 1½ inches across. The Comte de Brazza sort was particularly fine.

### SEEDLING ANEMONE FULGENS.

Messrs. Gilbert and Son, Anemone Nurseries, Dyke, Bourne, Lincs, have sent us a number of seedlings raised from *Anemone fulgens*. All are unnamed at present, and the flowers, being gathered from quite small roots, are not so large as they will be next year. Some of them are more brilliantly coloured than any we have seen; while some have a ring of pale yellow at the

base of the petals, others are quite self-coloured. Some of the soft rose shades are very beautiful. Every garden ought to contain such showy flowers as these. Few, if any, can excel them in brilliancy and richness of colouring at this time of year. Messrs. Gilbert hope in time to have forms of *Anemone fulgens* in a greater variety of colouring than they show at present; even in some of those sent to us there is a tendency to new and distinct shades.

### FLOWERS FROM AN ESSEX GARDEN.

Mrs. Wellesley-Pigott, Blackmore House, by Brentwood, Essex, sends a delightful gathering of spring flowers, with the following note: "I enclose a few samples of double and single Primroses grown on a somewhat steep, sloping bank exposed to the east and south-east, and so getting the full force of the severe snow and hailstorms. The colour is not so pure as in former seasons. The Dog's-tooth Violets and the blue Primroses are, however, a sight with masses of *Arabis alba* flore-pleno and *Anubetia* growing between clumps of *Narcissus Ard Righ* and *Crocus* in variety. In another border *Erica carnea* roses with *Chionodoxa*, *Snowdrops*, and white *Crocus* have been in bloom for nearly six weeks."

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

- April 10.—Devon Daffodil Show (two days).  
April 11.—York Florists' Spring Show.  
April 17.—Royal Horticultural Society's Exhibition and Meeting (Auricula and Primula Show).  
April 25.—Midland Daffodil Show (two days), and National Auricula and Primula Society's (Midland Section) Show (two days).  
May 5.—Special Show of Seedling Auriculas, Birmingham Botanic Gardens.

**In the Cause of Charity.**—The Hurst Musical Society is looking forward to a merry evening on Thursday, May 3rd. Mr. Edward Sherwood will then produce a musical play, composed and written by himself, called "On Puddletown Quay"; the lyrics are by Mr. R. Main. The proceeds of the performance will be devoted to the Gardeners' Royal Benevolent Institution and the Corn Exchange Benevolent Institution. Mr. N. N. Sherwood is president of the society, and Miss Ethel Hawes and Mr. Fred Washington, who were so successful in Mr. E. Sherwood's "In Cyderland," will play the leading parts. We hope there will be a large attendance to help forward these deserving charities. Tickets may be obtained from the hon. secretary of the Musical Society, Mr. F. A. Washington, care of Hurst and Sons, 152, Houndditch, E., or of Mr. E. Sherwood, Dunedin, Streatham Hill, S.W. The prices of admission are as follows: 10s. 6d., 5s., 4s., 3s. and 2s.

**Some forthcoming shows.**—The spring show of the Shropshire Horticultural Society will be held on the 4th inst., and the famous summer show, familiarly known as the Shrewsbury Floral Fête, will take place on August 22 and 23. The cash prizes offered at the latter amount to more than £1,100, exclusive of silver challenge vase for Grapes, silver cups, medals, &c. Messrs. H. W. Adnitt and W. W. Naunton are the hon. secretaries. Wolverhampton Floral Fête, the eighteenth annual flower show, will be held on July 10, 11, and 12 in the West Park. In addition to other prizes the cash prizes alone amount to nearly £800. Mr. W. E. Barnett, Snow Hill, Wolverhampton, is the secretary. The seventh annual exhibition of the midland section of the National Auricula and Primula Society will take place on the 25th and 26th inst. in the Botanical Gardens, Edgbaston, Birmingham. A special show of seedling Auriculas

will be held on May 5, when a paper will be read by Mr. R. Holding on the "Auricula." Every member is cordially invited to bring any promising seedlings he may have. Mr. R. Holding, 10, Beech Road, Bournville, Birmingham, is the hon. secretary. The nineteenth show of the Croydon Chrysanthemum Society will be held on Tuesday and Wednesday, November 6 and 7. The secretary is Mr. W. B. Beckett, 272, Portland Road, South Norwood. Weybridge and District Horticultural Society will hold their eighth annual summer show on Thursday, July 12. Mr. C. Whitlock, The Gardens, Fir Grange, is secretary.

**How to cook "Laver."**—May I tell your readers how "Laver" is cooked in Wales? It is pressed into thin cakes, well dredged with fine oatmeal, and plunged into boiling fat, as fish is cooked, and usually eaten with bacon at breakfast. It is far nicer cooked so than stewed. The local name is "Laverbread," hence your correspondent's idea that it is used in bread-making!—A GLAMORGAN SCOT.

**"A new 'vegetable'."**—The note on "A New 'Vegetable,'" in your issue of the 24th ult., reminds me of another substitute for Spinach, which cannot be known very generally in England, for I never heard of it during my twenty-five years' sojourn there. It is the green leaf of Rhubarb, which comes in very welcome at a time when vegetables are not over-plentiful. Prepared like Spinach, there is very little difference between this and the substitute; if the slightly acid flavour is objected to, it only needs boiling a few minutes longer, when this acidity will vanish entirely. To most people, however, the taste is rather a pleasant one. The colour is like "Lava," not so bright as the genuine Spinach, but as to taste I think it is one of the best substitutes, while the supply is unlimited at a time of comparative famine in "greens." Corn salad also makes a very acceptable substitute at the present time, and it has the advantage of being of a bright green colour like Spinach. We are having a second winter here now, after all the harbingers of early spring had made their appearance during a time of lovely sunshine; everything is buried again in 10 inches of snow, and the night temperature during the whole of last week ranged at from 12° to 18° below zero, Fahr.—E. H., *Planegg, Bavaria*.

**A note from Uganda.**—I noticed in your issue of February 3, 1906, an illustration of *Moschosma riparium*. It may interest your readers who are growers of that plant to know that it occurs here in a wild state. The plant is frequently used by natives as a hedge plant for their Banana gardens. For this purpose large branches about 3 inches in diameter and 5 feet to 6 feet in length are obtained and planted closely. These stems quickly shoot out and form a dense and quite useful hedge. The plant is always more or less in flower, and to pass along a narrow native path bordered on either side by a living fence of this beautiful plant is a very pleasant experience.—E. BROWN, *Botanic Gardens, Entebbe, Uganda, March 3, 1906*.

**"The Florence Fennel."**—Regarding the enquiry about Florence Fennel or Finocchio, I may say that I have grown both Fennels here, i.e., the Giant Sweet (*Foeniculum officinale*), also Finocchio (*Foeniculum dulce*). The former should be sown during August and September 18 inches apart in drills, and thinned out to 12 inches apart. It is ready for use during spring, and makes a welcome change when other vegetables are somewhat scarce. The Finocchio should be sown about the end of April in drills 18 inches apart, and thinned out to 9 inches to 12 inches. By making sowings once a month it may be had all through the summer and autumn. It matures quickly; both may be eaten either raw or cooked. Here in East Devon they both do well under ordinary garden cultivation.—JOHN COURTS, *Killerton Gardens, Exeter*.

**Scandinavian Apples.**—The following report on Scandinavian Apples grown in England for the last ten years may interest some of your readers. Ten years, it should be observed, is little more than the period required for acclimatization. Of those which I have cultivated only two can be recommended, one is Aekeroe and the other is Hampus. Of the former the original tree is still growing on an island not far from Stockholm, hence its name (pronounced O'kera), which means "field island." It is a fine dessert Apple, small, not unlike Irish Peach, and keeps in Sweden till April. Hampus is a Danish Apple, and is the earliest of its kind, ripening easily and without being pampered at the end of June. It has a briek flavour, and is unrivalled for preserving. It is certainly worth growing in the present rage for early Apples. Red Astrakhan is well known in England. It is perhaps the best of Swedish Apples. I am inclined to add the white variety, which has a beautiful bloom and a deep musky flavour.—N. P., Watford.

**The Atlas of the World's Commerce.**—It may be said here is "something new in the way of atlases," and we hope the parts and the volume which will contain them will have a wide circulation. When complete there will have been published 1,000 maps and diagrams, and the work has been the result of many years of labour. It is edited by Mr. J. G. Bartholomew, whose name is a sufficient guarantee of accuracy. The Editor in his preface says: "The first object of this Atlas is to show where all the commodities of commerce come from—our food, drink, clothing, and all that we use in our daily lives. Perhaps few people realise that the food to supply our simple meals has come from far distant lands, and that its provision necessitates an elaborate organisation of industry, capital, transport, and distribution. All this is shown in the Atlas. It is a key to the merchandise of the world—a summary of its material resources." The publishers are Messrs. Newnes, Limited, Southampton Street, Strand, London.

**Iris assyriaca.**—This charming plant is made a variety of *I. sindjarensis* by some authorities. It is, however, distinct enough for garden purposes, although it does not differ in any essential character from that plant. It has the same robust habit and broad, arching foliage characteristic of several members of this group of bulbous Irises, of which *I. orchioides*, with its lovely yellow flowers, may be termed the typical representative. The stems reach a height of 18 inches, and the flowers, each about 4 inches in diameter, are borne in the axils of the upper leaves five or six in succession. In colour the flowers vary slightly, but are usually of a satiny white, with pale lavender style arms, and, although individually they do not last more than three or four days, on a group with several stems a long succession of flowers is produced. The bulbs are very large and produce thick, fleshy roots, which penetrate the soil to a good depth, and when once established it is advisable not to disturb it. If, however, it is necessary to lift the bulbs in order to separate them and enlarge the group, this may be done as soon as the stems have died down, taking care not to break off any of the fleshy roots before mentioned. Before replanting, the soil should be dug deeply and plenty of mortar rubbish added, as most of the members of this group thrive in a compost of this description. Quite hardy, this plant can be grown in well-drained soil in a sunny part of the rock garden, although the position that suits it best is a border at the foot of a south wall. Of late years many new plants belonging to this group have been introduced into cultivation from Turkestan with more colour in their flowers, but *I. assyriaca* will undoubtedly hold its own owing to its robust character and delicately-tinted flowers. It is said to be a native of the Euphrates Valley, and usually begins to flower early in March.—W. LIVING.

### HORTICULTURAL HERESY.

Some Yankee nurseryman, 'tis said,  
Claims to have scored a floral coup,  
For he successfully has "bred"  
A Rose indubitably blue!  
Which, like the short-lived "green Carnation,"  
Will cause, he hopes, a wide sensation!  
But we, for our part, cannot be  
Approvers of the skill he's shown;  
Confound that nurseryman! say we,  
Why can't he leave the Rose alone?  
Blue Rose, forsooth! Why not black Lily,  
Or something even still more silly?  
For in the end this meddling orank,  
Resolved his cleverness to show,  
May outrage Nature by a prank  
Past which e'en *he* can't hope to go—  
Yes, he may stagger us, the varlet!  
With Violets of a vivid scarlet! —Truth.

## HOW TO GROW SWEET PEAS.

**U**NDER the auspices of the Melrose Horticultural Society, Mr. Thomas Duncan, Fogo, gave a lecture recently on "Sweet Peas." As Mr. Duncan is one of the most successful growers and exhibitors of this flower, we give the following résumé of his remarks: The reason of their great popularity is, doubtless, owing to the fact that no other plant, either annual or perennial, yields such a beautiful display of flowers at such a small outlay of time and money. It has been the custom recently with the best growers to grow them in clumps instead of rows, but I am satisfied that they grow just as well in rows, provided a sufficient space is allowed between them. One great advantage of the clump system, however, is that the clump has four aspects, and the



THE RARE IRIS ASSYRIACA AT KEW.

chances are that the flowers facing one or other of these will escape the ravages of stormy weather, and further, as some varieties burn in the sun, there are always some of the flowers sure to be unexposed to its rays. Clumps should be about 2 feet in diameter, and ordinary Pea trainers, bent to a circular form about 6 feet or 8 feet high, are used. The ground should be trenched to a depth of at least 2 feet, leaving the soil at the foot rough and loose. A liberal supply of cow manure should then be put in, and the trench filled up to within 6 inches of the surface. About the end of January a liberal dressing of soot, bone manure, and superphosphate of lime should be mixed up thoroughly with the top soil, and then filled up and left rough until time of planting.

### SOWING THE SEEDS.

As to actual sowing, the most common method is to sow direct into the open border during March and April, but the disadvantage of this system is that birds, slugs, or mice often spoil the seeds or young plants. This, however, may be prevented by coating all the seeds before sowing with red lead, and after the seeds have germinated the soil round the plants should be dusted with lime or soot to keep off slugs, &c. Lines of black cotton should also be put along the rows to frighten birds away. Most of the best growers nowadays prefer to sow their Peas in boxes or pots from the middle of January till the end of February, or even in October and November, growing them in a cold frame or cool greenhouse, and plant them out in April. The plants must be kept near the glass, and given plenty of fresh air. Whichever method is adopted, either planting or sowing, the great secret of success is thin planting or thin sowing. Seeds are so carefully selected and tested by merchants that nearly every one germinates; hence there need be no fear through thin planting. Four inches is the very smallest distance there should be between the plants, and I myself always make the distance 8 inches. If grown in clumps the stakes or trainers should be put in position before planting, and in rows they should be staked in good time. When about 3 inches high short stakes of 1 foot in height should be put in and the permanent stakes fixed up afterwards.

### CULTURAL NOTES.

When the plants begin to take hold of the stakes a dressing of good manure will greatly benefit the flowers. During growth the soil should always be kept loose and free from weeds, and in dry weather plenty of water should be applied. When flowering begins, but not till then, liquid manure should be given freely, as Sweet Peas are gross feeders. I find that better results are got from cow and sheep manure than from any artificial product. As to the varieties of Sweet Peas, there are at least 300 in commerce, and I think only about fifty of these are worth growing. Among the selfs the best white is Dorothy Eckford, the best rose Lord Rosebery, and the best pinks Countess Spencer, Gladys Unwin, and Bolton's Pink; the best yellows Hon. Mrs. Kenyon and D. Breadmore; blue, navy blue, R. Piazzani and D. R. Williamson; violet and purple, Duke of Westminster; orange shades, Miss Willmott; crimson and scarlet, King Edward VII. and Scarlet Gem; lavender, Lady Grael Hamilton; mauve, Mrs. W. Wright; maroon and bronze, Black Knight. Among striped flowers he mentioned American and Princess of Wales as best. In the tricolors he gave Jeannie Gordon as excelling all others. In the fancies Agnes Johnston, and in the picotee edged he gave Dainty as easily the best. The above list contained none of this year's novelties, but he mentioned as coming under this head John Ingman, rose and carmine; Helen Lewis, orange; Mrs. Charles Foster, lavender; and Mrs. Hardcastle Sykes, picotee edged. Also Henry Eckford, orange; Queen Alexandra, scarlet; Beacon, bicolor; Evelyn Byatt, improved gorgeous; Helen Pierce, pale blue.



## ANEMONE BLANDA.

THIS family holds a most conspicuous place among hardy plants, very few embracing so many beautiful and charming constituents. Beginning in the early spring with the present plant the many species provide a succession of bloom through the summer months, finishing up with the various forms of the Japanese *Anemone* in the autumn. The accompanying illustration shows a colony of the charming *A. blanda* as it appeared on a sunny day in the middle of March. It had already been in flower for over a month, some of the flowers showing at the beginning of February. The situation in which they are growing is rather a moist one, facing north-east, and getting but little sun, which reaches them during the morning.

A more beautiful sight it would be difficult to find at this time of the year outside, with all the flowers fully expanded under the influence of the sun. Their colour varies through many shades of blue and purple to pure white, while there is also a form with deep pink flowers. In addition, the shape and form of the individual flowers vary to a considerable extent; some have long florets and are quite starlike in appearance, others have broader and shorter ones, forming more compact flowers of greater substance. In this spot it has made itself thoroughly at home, seedlings springing up in abundance around the old plants, thus producing the great variety of form and colour which the group contains.

Seeds germinate readily if sown as soon as they are ripe, but if kept till the following spring and allowed to become dry they take a long time, or frequently fail altogether. *A. blanda* is closely allied to the better known, but later flowering, *A. spennina*, but whereas the Eastern limit of

the latter species ends in the Eastern European Alps, *A. blanda* extends from Greece through Asia Minor and the Caucasus into Northern Persia. It may easily be distinguished by its dwarfer and more robust appearance, as well as by the time of flowering, which is generally six weeks before *A. spennina*. Like the latter plant it is admirably adapted for naturalising in open woods or thin grass in the wild garden. W. IRVING.

## THE FRUIT GARDEN.

### CO-OPERATION WANTED.

IN THE GARDEN of the 17th ult. "Countryman" asks, in reference to the cottagers' small orchards, what could be done with the produce, and goes on to say that if the scheme could be carried out there would be no sale for the fruit and no profit gained. Now surely "Countryman" must know that almost all the fruit consumed in the cities and towns of the United Kingdom for at least nine months in the year is foreign-grown, and even country-folk have to patronise the foreigner; but I venture to think this state of affairs would not prevail if "Countryman" and others would only put their shoulder to the wheel. Let us have some encouragement from our county councils and landlords and co-operation with each other, and we will oust the foreigner yet. "Countryman" talks about the difficulty of getting to market. Why some of the fruit-growers of America and Canada live twenty, forty, and even sixty miles from a railway or town; yet we hear from them in the shape of Apples and Pears, and of course we pay. But are we disheartened? I am glad to see most of

THE GARDEN contributors are not. Dig deeply, manure well, plant firmly, store carefully, grade properly, and regulate the supply to meet the demand as well as we can. Combine and co-operate; these are the watchwords for the small growers.—MONTGOMERY.

### MELONS IN FRAMES.

FOR those who have not the convenience of growing them in houses, the cultivation of Melons in frames, on hot-beds of fermenting material, is a good way of growing this luscious fruit. The present is a good time to commence the preparation of a hot-bed. Collect a quantity of leaves and long stable manure together, and put into a heap to ferment; use two loads of leaves to one of long stable manure. Have the heap turned and the materials well mixed together two or three times before the bed is made up. The latter should be made 18 inches wider all round than the frame, to allow a lining of long manure and leaves. Have the bed well trodden and the material thoroughly mixed together. When finished the bed should be 4 feet in height. Moderately dry soil—2 inches in thickness will suffice—should be placed over the surface. Mix half a barrowful of good yellow loam with a small quantity of horse manure and lime rubble, and place in the centre of each light in a mound with the top flattened, so that the compost is about 10 inches in thickness, exclusive of the soil with which the bed is covered.

### PLANTING.

It is a good practice to raise the plants in small pots, and have them strong enough to plant out when the bed has settled down to a temperature of 80°. If the plants cannot be prepared in advance, sow the seed in small pots in a mixture of light loam and leaf-soil, place one seed in each, and plunge the pots in the bed. When the seedlings are strong enough, plant one immediately in the centre of each hillock, pressing the soil firmly around the ball; do not bury the plants deeply, but within 1 inch of the seed leaves. Melons delight in plenty of heat; place a thermometer in the frame and maintain a temperature of 70° by night, and 80° to 85° by day with sun heat. If the night temperature falls below 70°, the frame should be covered with mats. Air should be admitted by raising the lights at the back, and the time of opening and closing regulated by the thermometer.

### WATERING AND SYRINGING.

Moderate applications of water only will be needed until the fruit has set. The water must be made tepid by adding hot to cold, or by exposure to the sun before applying it to the roots, or syringing. The plants may be syringed and the frame closed early on bright days until the fruit begins to ripen, when the syringing must be discontinued and a drier atmosphere maintained. I do not recommend strong stimulants; drainings from cow-sheds may be diluted with water and applied to the plants once a week when the fruit is swelling. Stop the plants when they have made four rough leaves, then a shoot will push from the axil of each leaf. Encourage two shoots towards the top of the frame and two towards the bottom; train these 18 inches apart. When they get to within a foot of the sides, they should be stopped; this will throw all the vigour into the laterals, which will show fruit at the second or third leaf. If they do not, stop again at the second leaf; this will cause them to throw sub-laterals, on which flowers are sure to appear.

### SETTING THE FRUIT.

Select a bright day for this work, and by means of a camel-hair pencil pollen can be taken from the male flower to the female, or a male blossom may be stripped of its corolla and inverted in the female one. Fertilise as many as possible at the same time. Keep the plants and frame dry for a few days, until the fruit begins to develop, then select six even fruits on each plant. Place a piece



A RILL OF ANEMONE BLANDA IN THE ROCK GARDEN IN KEW GARDENS.

of slate under each fruit, and when they have attained the size of cricket balls raise them on small pots, and keep them turned occasionally.

#### PRUNING.

After the fruits are set stop all growths to one leaf beyond the fruit. Thin out all thin, useless growths, and cut away any shoots that would deprive the principal leaves of light, air, and nourishment.

Good varieties suitable for frame culture are: Little Heath and Blenheim Orange, scarlet flesh; Hero of Lookinge, white flesh. Suttons' Superlative, scarlet flesh, and Suttons' Ringleader, green flesh, are two good newer varieties.

Marlow.

G. W. SMITH.

## DAFFODIL NOTES.

**NARCISSUS ETHELBERT.**—This beautiful poetical hybrid was raised by Mrs. R. O. Backhouse of Sutton Court, Hereford, a lady who has been patiently working for the betterment of the Daffodil for many years past, and with no inconsiderable success. Ethelbert was one of the varieties with which Mrs. Backhouse gained the premier prize for a group of six seedlings, all to be raised by the exhibitor, at the Midland Daffodil Society's exhibition in 1904, and on that occasion was given an award of merit. It is a charming flower, with pure white petals of singular solidity and a dainty saucer-shaped cup, the centre of which is tinged with soft lemon and citron, while the edge is margined with an attractive shade of light orange-red. The breadth of each individual flower is  $2\frac{1}{2}$  inches, not large in comparison with many of the new poetical forms exhibited by Mr. Engleheart and others. But mere size counts for nothing as compared with perfection of form, and it is on account of its faultless grace and symmetry that so good a judge as my friend Mr. Bourne considers it one of the most perfect Post's Daffodils yet raised. Part of the stock of this lovely plant was acquired last season by Mr. Charles Dawson, who distributed it at £5 5s. per bulb.

**Narcissus pallidus præcox.**—I have been watching with some interest a little colony of this delicate straw-coloured Spanish Daffodil, which is now happily established on the north side of my rock garden in a soil composed of sand and peat. Last year the first flower unfurled on February 19, this year it was nine days earlier. Unfortunately, however, only one bulb displayed this precociousness, as all the rest lagged behind and did not bloom until quite the end of the month. Apparently by careful selection it is quite possible to develop this precocious habit still further, and with this object in view I am now only saving seed from this very early-flowering bulb. For several years now I have made crosses between *N. pallidus præcox* and *N. obvallaris* in the hope of obtaining a race midway between the twain, and so far the resulting seedlings look strong and healthy.

**N. variformis** is another plant that varies largely in its period of flowering, and it will doubtless be remembered that Miss Willmott received an award of merit from the Narcissus committee in 1901 for a delectable little bicolor Ajax named Allen's Beauty, the result of a selection made by Mr. James Allen of Shepton Mallet.

**A new Polyanthus hybrid.**—At the end of last October I received a note from Mr. C. Dawson in the course of which he mentioned that among his Daffodils, which were then showing through the ground, was a Polyanthus seedling raised from Grand Monarque  $\times$  Golden Spur, that had flowered before Scilly White and Soleil d'Or, the two preceding years. I have now before me a massive spike of this seedling bearing fourteen flowers, and can safely say that it is the finest Tazetta hybrid that has yet come under my notice. Side by side with Grand Monarque it is easy to see that this is undoubtedly

a finer plant, and if it maintains its earliness it must prove a great gain. The creamy white petals are of splendid substance, and the small shapely cup is a soft chrome yellow, and without that tinge of citron seen in Grand Monarque.

Since penning the above remarks Mr. Dawson has named this fine plant "His Excellency," and exhibited it at the Royal Horticultural Society's meeting on the 20th ult., where it was acclaimed as a splendid acquisition by nearly all the leading growers present. You will see by the specimen I am sending you how great is the vigour of the plant, and how much superior it is to its one parent Grand Monarque.

[A superb Polyanthus *Narcissus*. The stem sent by Mr. Goodwin bore no fewer than fifteen flowers, the average width of the blooms being over an inch and a-half. The colour is peculiarly beautiful, the cup soft yellow, and the segments creamy white.—Ed.]

**Narcissus Homespun**, of which Mr. Dawson also sends me a bloom, is a magnificent plant, with its perianth of soft translucent yellow, the broad firm segments overlapping one another midway from their bases. It belongs to the incomparabilis group, but possesses the exquisite shape, contour, and evenness of petal which characterise most of the Leedsii varieties. The open cup is a few tones deeper in colour, slightly frilled and fluted throughout. The blossom has an unusual attribute. It is scented, and exhales a perfume redolent of almond essence. No more beautiful flower is, I venture to say, to be found in this group, and although it is an extremely expensive variety, it is so far superior to anything else and has such a splendid constitution that no one who can afford it is ever likely to regret its purchase. At the Cornwall Daffodil Society's show in 1903, a flower of this superb *Narcissus* was exhibited by Mr. J. C. Williams that measured 4 inches across, and I drew attention to this in THE GARDEN for April 18 of that year.

**Narcissus cyclamineus.**—The illustration of, and note upon, this delightful plant (page 148) reminds me how unfortunate it is that hybrids between this species and the garden varieties seem to possess no constitution. Mrs. Backhouse tells me that her experience in this way has been most disappointing. Comet (cyclamineus  $\times$  obvallaris or Henry Irving), for which she gained an Award of Merit on March 27, 1900, and which constituted quite a break away from the ordinary run of Narcissi, has proved of no constitution, though it was a strong grower at



NARCISSUS ETHELBERT.

first. But seedlings from many wild species of Ajax are very apt to do this, soon making quite a good clump and then dying out entirely. Plants raised from crosses the other way have also, in Mrs. Backhouse's experience, proved disappointing, for though they showed traces of cyclamineus in the dark yellow colour, long trumpet, and narrow petals, the perianths were in no case reflexed, at least so very slightly as to be no improvement. They were quite strong growers, but of no use and were discarded. It is certainly most discouraging that the best cyclamineus hybrids prove so intractable to cultivate; however, from what I learn from several of my friends, who are still persevering in the efforts to obtain a vigorous race in which the charming cyclamineus character shall be conserved, it is not improbable that this object may yet be attained.

**Yellow stripe disease.**—In 1904 (Vol. LXV., page 407) a note on this subject was reprinted in THE GARDEN from the Journal of the Horticultural Society, in which Daffodil growers were invited to "endeavour to decide what is the cause of the disease manifested by yellow stripes in the foliage, and sometimes yellow stripes on the flower-stalk, running on into white stripes in the yellow perianth." Whilst looking over my stock of that early incomparabilis Blackwell a short while ago, I was reminded of this mysterious disease from noticing that one bulb of the variety named was badly affected with it. Some time has elapsed since this request for information was published, and as nothing seems to have come of it no harm will be done in again raising the



question. I lay claim to no special knowledge on the subject, but am a sufferer at the hands of the disease, and wish to discover, if possible, something of its cause and origin. Mr. Peter Barr puts down most Daffodil ailments to unsuitable soil and manuring, or rather, over manuring. No doubt there is a good deal in this, but it is not, I fancy, the correct solution of the yellow stripe problem. "One year," I again quote from the Royal Horticultural Society's note on the subject, "your stock of Daffodils may show broad deep green foliage standing up erect and strong; next year one or two varieties will have their foliage striped with yellow, and the flower-stalks be bent and feeble, some possibly lying prone on the ground. No fungus disease can be found; it seems to be some essential debility affecting the constitution of the whole plant. At one time we had almost decided that it probably arose from poverty of soil, and then the next year a whole bed of princeps appears with 'yellow stripes,' except that an average of every tenth bulb is quite healthy and strong, and as dark green, glaucous, and as crisp as you could wish, and these scattered fairly regularly all over the bed, seemingly proving that it is not the soil." Some of my own Daffodils have suffered badly from this complaint, and I have always attributed it mainly to the want of a change of soil, so much so that last summer I removed the whole of my collection into an entirely fresh district where the soil is of a widely different nature and well adapted for bulb culture. At the moment of

writing the season is not far enough advanced to speak definitely as to whether the change has wrought any benefit, though Golden Spur and King Alfred have undoubtedly an improved appearance. Last year one of my colleagues on the Narcissus committee sent some "yellow stripe" Daffodils to a botanist (one of the microscopical section), who reported as follows: "Your Daffodils have what is known as 'Bacteriosis,' believed to be caused by *Bacterium Hyacinthi*; you will find some account of it in *Massee, 'Plant Diseases,'* page 339." No suggestion as to any remedy was given. I have turned up the reference given in *Massee*, and this is what I read:

"*Hyacinth Bacteriosis*.—A destructive disease of Hyacinths, well known in Holland, attacks the bulbs in the resting condition, and also shows itself in the foliage. The presence of the parasite is indicated by the appearance of yellow spots on the bulb or leaves, due to the presence of a yellow mucous teeming with bacteria, located in the vessels and intercellular spaces of the fundamental tissue. Infection of healthy plants with this mucilage produces the disease." As no remedial measures are recommended, we Daffodil growers are still in the dark as to how to fight this plague, and I am therefore suggesting to the Editor that *THE GARDEN*, which has done so much to encourage and foster a love of the Daffodil, should offer a prize to the person who sends in during the next three months the most lucid information tending to throw further light on this most important subject.

A. R. GOODWIN.  
Kidderminster.

#### DOUBLING LENT LILIES.

IN reply to Mr. Watts' queries in *THE GARDEN* of the 24th ult., to the best of my belief the flowers of the double Pseudo-Narcissus which reverted from perfect double to single were indistinguishable from the ordinary single in pistil, stamina, and in every other respect. I have three clumps of double, and had also a number growing among singles, in soil exhausted by the roots of a large hedge. The three clumps remain double, but those near the hedge are no longer distinguishable from the single kinds which surround them. I gather from Mr. Watts' letter that he was under the impression that in the doubling process the stamina, at any rate, might assume the form of narrow flower segments, and on reading his remarks I pulled a double flower carefully to pieces, and was rewarded by finding pistil and stamina entirely



LILIAM GIGANTEUM, SHOWING LENGTH OF FLOWER STEMS.

unchanged in the doubling process, ready to commence fertilisation as soon as the pollen should be developed.

In 1884 the late Mr. Burbidge said that up to that date there was no record of a double Narcissus having ripened seed; nevertheless, as stated in my previous notice, I had no doubt it had frequently taken place, but until last year I had no positive proof to show for my belief. Mr. Watts' observation in reference to the double seedlings from double *Telamonius* is much to the point. He, too, had observed clumps of double *Telamonius* at such distance from the principal clump as the pods from the latter were likely to scatter their seeds. One more query remains to be answered. The pods of the double flowers were identical with those of the single in size and shape, and were well filled with full and ripe seed.

T. H. ARCHER-HIND.  
Coombe's House, South Devon.

#### TREES AND SHRUBS.

##### A GOOD HEDGE PLANT.

(*OSMANTHUS ILICIFOLIUS*.)

**D**URING the last few years this shrub has come into favour as a hedge plant, and has given general satisfaction wherever it has been used. It is not a good plant for outside hedges, the growth not being stiff enough to withstand much pressure, but for inside hedges it is equal to the Holly in appearance for a hedge not more than some 5 feet high. Up to this height it makes a splendid hedge, the dark, glossy green, Holly-like leaves becoming close-set and very handsome after the shears have been used on the plants a few times; and the base also keeps well furnished, which is an important point with all hedge plants. An *Osmanthus* hedge should be clipped in May each year, and again in October, as the plant is a fairly rapid grower and requires



ROBUSTA VARIETY OF THE DEODAR CEDAR (*CEDRUS DEODARA ROBUSTA*).



close clipping, especially for the first few years. In making the hedge the ground should be well trenched, and a little well-rotted manure added, but this latter should not be overdone. It is better to give the hedge a mulching a year or two later, when the soil is becoming exhausted, than to use too much at the start and so promote rank growth.

The Osmanthus can be recommended for a low hedge around terraces and in formal gardens, and also for wind-swept places and under trees. There is probably no evergreen shrub that withstands wind or shade better than the Osmanthus, and, with the possible exception of Hodgins' Holly, none puts up with the drip of trees so well. A hedge of Osmanthus costs about two-thirds or rather less than one of Holly of the same height; though the two are practically

come across good specimens of the Garrya thus grown well in North Scotland, as well as in the Lothians, and a few days ago I saw it in excellent condition in bush form in the garden of Captain Hope at St. Mary's Isle, Kirkcudbright. Although the recent spell of severe frost, coming after a wet winter, was as trying as anything we have had for some years, the Garrya was quite untouched, and had given a profusion of its charming catkins. I have had a small plant in my own garden unprotected all the winter and away from a wall, and it also has not suffered, although at present more exposed than the others I have seen. Grown away from a wall the Garrya is much more pleasing than in the stiff way one so frequently sees it trained, and when it flowers freely few things in its season are more beautiful. S. ARNOTT.

after blooming, leaving only a few small bulbs clustered around the base. The flower-stem will in the case of a vigorous specimen reach a height of 10 feet or more, though many will flower before they attain such dimensions. The leaves are large and heart-shaped and of a deep shining green tint, while the tubular-shaped blossoms, which are about 6 inches long, are white, tinged usually with purple on the inside and green on the exterior. It is not uniformly hardy throughout England, but where it cannot be depended upon to stand the winter this noble Lily will well repay greenhouse cultivation, for where a conservatory has to be kept gay at all seasons a few examples of this when in bloom form a very distinctive feature. P.



LILIAM GIGANTEUM IN A BORDER AT IMBER COURT, ESSEX.

about the same price, yet the former, being much thicker, does not require such close planting. Bagshot, Surrey. J. CLARK.

#### CEDRUS DEODARA ROBUSTA.

THIS beautiful and distinct variety of the Indian Cedar does not belie its name, for the tree grows freely. Its branches, though thicker than those of other varieties, are pendulous, the branchlets often hanging almost vertically, recalling in this respect *Picea smithiana* (Morinda), another native of the Himalayas. The leaves are long, sometimes over 3 inches in length, either pale green or glaucous in hue. The illustration shows a small specimen about 10 feet in height. Other good distinct varieties are: *C. D. aurea*, in habit similar to the type, its leaves in spring and summer being of a brilliant golden colour, fading to a bright green in winter; *C. D. viridis*, leaves of a vivid green, with little or no glaucous tint; and *C. D. verticillata glauca*, the bluest leaved of all the Deodars, rather slow in growth, stiff and rigid in character, but makes a fine tree eventually. Nymans, Crawley. J. COOMBER.

#### GARRYA ELLIPTICA.

It ought to be kept well before those interested in shrubs that *Garrya elliptica*, so frequently cultivated stiffly trained against a wall, and even then held by some as not quite hardy without protection, is much prettier and hardy enough in bush form and away from the wall. One has

## THE FLOWER GARDEN.

### LILIUM GIGANTEUM.

SEND you two photographs of *Lilium giganteum*. I simply followed the directions for its cultivation laid down in Miss Jekyll's book "Wood and Garden." I began with four bulbs about six years ago (of that autumn I think), and now I have about forty, of which I hope to have five or six in bloom this summer, and next and subsequent years a much greater number. As you know, when the bulb flowers it dies, leaving little ones, which flower in two to four years, I believe.

S. WHITEHEAD.  
Imber Court.

THOUGH by no means a novelty—for it was introduced as long ago as 1852—yet this Lily is far from common. There is no danger of confounding it with any other, as it is so distinct in every way. The bulbs of this Lily are composed of large, thick scales, of which but a limited number go to form a good-sized bulb. They are usually of a light brown colour, but in this respect there is a certain amount of variation, according to the soil in which they have been grown. The bulbs increase in size year by year, and when they flower the entire centre of the bulbs starts away to form the flower-stem after the manner of the American *Aloe*, and, like that, the original plant dies

THIS pretty group of the noble *Lilium giganteum* was photographed in a garden in the north of Ireland, the taller stems measuring 11 feet. The flower stems are thick and erect, bearing long tube-shaped flowers, white, tinged with purple inside, most deliciously fragrant. The leaves are also very handsome, glossy, and heart-shaped. It is really a hardy Lily, but flourishes best as here depicted in rather a sheltered position, where it gets some protection in the spring months. S. M. WALLACE.

Lough Eske, County Donegal.



LILIUM GIGANTEUM AT ARDNAMONA, LOUGH ESKE, DONEGAL.



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**T**WO VALUABLE BEGONIAS.—The accompanying illustration shows two beautiful Begonias, *B. manicata* and *B. conchifolia*, growing against a wall in one of the houses in Bodorgan Gardens, Anglesea. We are indebted to Mr. Jordan for the photograph. *Begonia manicata* is a very old plant, and not very frequently grown, yet it is most valuable in early spring. It is a most elegant plant, and very useful for home decoration. A correspondent writes: "I grow the plants in 8-inch pots. In April I put three strong cuttings round the side of a 5-inch pot. These are placed in a warm frame, where they quickly root. They are, when well rooted, potted into 8-inch pots, using loam, rotten manure, and a little sand. These are grown on in cold pits and in the autumn removed to a cold house. As the days shorten they are placed in a warm house." *B. conchifolia* (shell-leaved), a native of South America, is also seldom met with. It is known also as *B. scutellata* and *B. Warscewiczii*.

*Banks of Ferns* may be made now. Many of the hardy British Ferns will grow better on a sloping bank—which can easily be created by excavating a winding path, using the earth to form the banks on each side—than on the usual heap of stones called a rockery. The site should, if possible, be shady, without being much exposed to the drip of trees. In Norfolk and other counties where Ferns are plentiful they are generally found nestling along the hedge-bottoms, and something of this kind can easily be created by planting a suitable shrub or two along the summit of the bank to form a shelter for the Ferns and bulbs we intend to plant. Among the Ferns suitable for planting on banks are the Male Fern and its crested variety, and the *Athyriums* in variety. Keep the families together; do not intermix them.

*The Hart's-tongues (Scolopendriums)* should be planted towards the bottom, where there will be moisture, and they grow best in rather stony, somewhat heavy soil. *Blechnum spicant* is a good bank Fern, and this also has a crested variety, which should be grown near the type. *Asplenium Adiantum nigrum* is a pretty Fern common in some districts. I have found it freely in Worcestershire, where the Hart's-tongues are also very common. *Polystichum angulare* and its varieties are very interesting Ferns, nearly evergreen, and especially graceful in groups on the bank.

A *Rockwork* may be made for such Ferns as *Ceterach officinale*, *Asplenium Trichomanes*, the Wall Rue, and other small-growing species. *Polypodium cambricum* needs a limestone soil, and a few stones to shelter and protect the young growths. Then a glorious show may be made

with bulbs, Primroses, such berry-bearing plants as *Pernettyas*, and *Gaultherias*.

*Protecting Fruit-tree Blossom.*—I have had Peaches and Nectarines bear good crops of fruit without protection; in fact, one Nectarine tree has been left without protection for many years, and it has never altogether failed. But this does not prove that all the other trees will do as well if left unprotected. A gardener cannot afford to

material. And we are quite right in doing so, providing the shading is not of a permanent character, such as whitewash or Summer Cloud. These may have their turn later, but at present no shading should be kept on a minute longer than it is really required. Plants reared beneath shading are invariably weak and leggy, and never properly recover from its baneful effects. Often only one plant or one pan of seedlings shows signs of flagging, and it is folly to lay a large mat over the glass. Far better move the drooping subject to a place where the sun cannot reach it, or lightly lay a sheet of newspaper over it as it stands. Flagging is often due to a high temperature, and ventilation will then allay the trouble. Of course, flagging from want of water is another thing.—E. JACBY.



A WALL OF SPRING-FLOWERING BEGONIAS.

take risks. The opening blossoms are sheltered, in our case, by second-hand fishing-nets, which can be purchased cheaply, and if taken care of will last a long time. Ash-poles can be cut out of the plantations, and these, fixed under the coping at suitable intervals, will support the nets. I have sometimes used double nets, but a single thickness answered the purpose. I think the small-flowered Peaches and Nectarines are harder than the large-flowered trees, but this is merely an opinion. The amount of shelter obtained from a single thickness of net when strained is surprising.—H.

*Shading.*—The first burst of strong sunshine finds out many weak spots in our greenhouse plants, and we make a rush to apply shading

## THE TOWN GARDEN.

*Planting Violas.*—Tufted Pansies or Violas should be planted as soon as young plants can be obtained. Where a border cannot be devoted to them, they may with advantage be planted among dwarf Roses. The latter are doubtless better without them, but space in the town garden is valuable, and one must turn every yard to account. The soil should be well stirred up now with the fork; then apply a covering of well-decayed farmyard manure, and fork this in about 3 inches or so beneath the surface. Violas like a rich soil, and unless the roots can obtain food and moisture during the summer they do not flower well. The old plants that flowered last year should be cut back and have a mulch of manure. They will flower again profusely, and earlier than the newly-planted young ones.

*Roses on Walls.*—Some of the climbing Roses grown on walls, and particularly the old favourite Gloire de Dijon, do not always send out good new growths from the base. If this is not done when the plants are young, it is almost impossible to have really good specimens. Whenever it is possible—and with young plants it is always so—the shoots should be bent down, so as to encourage the buds at the base to burst into growth. It will be noticed, if the shoots are trained in a perpendicular or slanting direction against the wall, that only the buds towards the middle and top of the shoot break into growth; those at the base remain dormant. If, however, these shoots are bent down so as to form a semi-circle, the basal buds will be induced to grow, and something will have been done to prevent the formation, in later years, of such specimens, bare of leaves and young shoots within several feet of the base, as one often sees.

*Planting Spring Flowers.*—The town gardener fails to make the best of his means by buying too late. He waits until the little Violas, Pansies, Polyanthuses, Daisies, Hepaticas, &c., he wants to make the garden gay come into bloom

before he purchases, and then by the time they are established the season of flowering is almost over. To obtain good early bloom the beds and borders should be filled up in the autumn, and then the plants will get a good hold of the soil and will flower abundantly. The same thing occurs in bulb planting. Many people frequently ask one about Christmas when they ought to plant bulbs. They should know that all early-flowering bulbs should be planted early in the autumn, and Madonna Lilies as soon as the growth dies down in August.—H.

**Mulching.**—If the beds and borders were dug deeply and manured in the autumn, or even the previous year when they were filled with plants, the soil will now be in excellent condition, and a mulch of well-decayed manure will improve it. This should be spread over the surface of Rose beds and herbaceous borders, and should be lightly forked in—that is to say, it must not be dug in deeply, but covered with about 3 inches of soil. This is easily done by thrusting a fork in the soil in a horizontal direction some 3 inches beneath the surface, and turning over the forkful of soil and manure so that the latter is at the bottom. There will then be no danger of damaging the roots of the plants. I believe it is far better to give a mulch of well-decayed manure now than in the autumn, unless, as rarely happens in a town garden, the soil is light. It is usually far too heavy to grow most plants until it has been improved. During the winter it remains wet and cold, and a covering of manure serves but to make it colder still.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**PLANTING EVERGREENS.**—April and September are the months when these shrubs should be planted. By planting evergreens just as they are beginning to push their growths the roots are also becoming active, and take to the new soil. Evergreens of considerable size may be removed with safety provided that they are taken up with care to retain good balls of earth and planted immediately. The success of all planting depends in a measure upon the length of time the plants are out of the earth, and also on the size of the plant. If plants have to be purchased and travel long distances by rail, not unfrequently delayed in transit, small plants are preferable, as they are less liable to injury than large ones; but in the case of plants to be removed from one part of the garden to another, large plants may be successfully moved. In planting the pit should be made so that all the roots can be laid out in a natural way; folding and cramming roots into small pits is very detrimental to successful transplanting. Having laid out the roots, it is a good plan only to half fill the pits with earth, and then give a good watering to wash the earth among the roots, leaving them till the next day to settle, when the remaining earth may be filled in and trodden firm. During dry weather water frequently and syringe occasionally.

**PLANTING EDGINGS OF BOX.**—This may be done with safety practically all the year round, but for choice in April. Choose if possible a dry time, for this work can be done much more expeditiously and cleaner when the walks are dry. In preparing the ground for Box edging it should be well trodden down and made perfectly level with the surface of the walk. Stretch a line upon it and make a neat, even trench 6 inches or 8 inches deep with a spade; bring the earth out on the side of the walk. Against the side of the trench the Box plants are placed, and held by being pressed with the back of one hand, while with the other a little earth is placed

over the roots and against the plants to hold them in position. All thick roots should be cut off and spread out thinly and evenly, so that the line will be level and equal throughout without any clipping; it is very injurious to cut the top of newly-planted Box edging. A sufficient quantity of soil should be placed over the roots and trodden firm, the remainder filled up with gravel, and the walk rolled down. Another sowing of

STOCKS AND ASTERS should be made now, and treated as advised in the March calendar. Sow also seeds of

**ZINNIA.**—These are often sown in March, which I consider too early, and consequently the seedlings become too large before it is safe to bed them out. Sow the seeds in boxes and place in very gentle heat. As soon as the seedlings are large enough prick them out on a half-spent hot-bed. Shade the seedlings till they become established; afterwards give air more and more freely until the plants will bear full exposure.

G. D. DAVISON.

*Westwick Gardens, Norwich.*

### ORCHIDS.

**THE ODONTOGLOSSUM HOUSE.**—The flower-spikes of *O. crispum* are making considerable progress, and many plants are already in flower. In order to render them useful for decorative purposes it is necessary to tie them to a neat stake. I have drawn attention in a previous issue of THE GARDEN to the necessity of removing the flower-spikes of all weakly plants as soon as they appear. It is also a bad plan to leave the flower-spikes on the plants too long after they have fully expanded. Owing to the different seasons of the year at which *O. crispum* flowers, some require repotting every month where they are largely grown. The best time to repot is when the young growths are 2 inches or 3 inches high; it is then that they emit new roots at the base. Cultivators differ with regard to the best compost in which to grow them; some advocate proportions of peat, moss, and leaf-soil. I have experimented with many different composts, and have come to the conclusion that equal parts of Polypodium fibre and sphagnum moss chopped up together, and freely intermixed with finely-broken crock and coarse silver sand, give the best results. The plants produce harder growths and finer flowers than those grown in the leaf-compost do. With plants now ready for repotting the decayed compost should be removed from the roots, repotting them in the mixture advised above. Old pseudo-bulbs without leaves should be removed or partly out through the rhizome, retaining about three bulbs behind each lead. Select clean pots, nearly half full of drainage, sufficiently large to allow the roots to be placed in without injury. Place a little of the rough material over them, and work the mixture between and about the roots firmly. The plant should be potted so that the surface is just below the level of the rim of the pot, and the base of the young growth should be just level with the surface.

**WATERING** is a matter of great importance; success or failure to a great extent depends upon this. Where plants are in different stages of development, it is advisable to stage them in batches, so that all the plants that have passed out of flower are together, and so on. The plants which have passed out of flower should be given a rest for a time—that is to say, they require less moisture at the root. On the other hand, plants that are growing freely require a copious supply of water at the root.

**THE ATMOSPHERE** should be heavily charged with moisture at all times, and the plants should be sprayed overhead at least twice a day when the conditions outside are favourable. The blinds should be lowered as soon as the sun reaches them, as strong light at this time of the year often causes the leaves to go brown and decay.

**VENTILATION.**—Although *Odontoglossum* revel in a freely-ventilated structure, air must be given with discretion. Ventilate freely without creating draughts. In my opinion it is better to open the top ventilators and let the warm air out when opportunity affords, and keep the bottom ones nearly closed, for if the two are opened to any extent at the same time, it seems to me that a draught is unavoidable.

IMPORTED PLANTS should be placed in small pots filled with broken crocks and be kept in the shade part of the house, syringing twice a day until the young growths emit new roots, when they may be potted and treated as advised above.

W. H. PAGE.

*Chardour, Bourton-on-the-Water, Gloucester.*

### FRUIT GARDEN.

**STRAWBERRIES.**—The soil should now be in good condition for planting the young Strawberries that were prepared from runners in the autumn. Assuming that the ground has been already trenched and heavily manured, it should now be roughly levelled with a rake or a fork. It should be moderately firmed by treading along the lines, and finished off with a rake. Make the surface smooth and level previous to planting. A suitable distance for most varieties is 2½ feet between the lines and 1½ feet between each plant. They should be planted with a trowel, making the hole large enough to contain all the roots without cramping or doubling them up. The crowns must be carefully watched in the operation of planting, as if planted too deep they are liable to get covered over with soil and cause the plants to die off. It is needless to add that the other extreme of planting too high is also detrimental to the success of the plantation; hence the necessity for firming and smoothing the ground thoroughly before starting to plant, so that the correct level at which the crowns should be is easily observed. The soil should be pressed firmly round the roots with the hand, finishing off neatly with a rake. As these plants will not be expected to fruit this season, all the flower-trusses should be picked off as they appear, and a crop of some quick-growing vegetable can be grown between each line. Nothing should be grown between the Strawberry plants that will in any way interfere with the free admission of light and air. Spinach, Lettuce, Onions, early Turnips, &c., that can be cleared off before the runners from the young plants have made much progress will be found most suitable, as from this young plantation the runners for the following season will be procured. It is necessary to give them the full benefit of light and air. Plants that have been forced and just finished fruiting may be kept in a cold frame for a time to harden previous to planting out. They will if desired produce a limited crop in autumn, but it is advisable to prevent this by picking out the flower-trusses and reserving all the energy of the plant towards the production of the following season's crop. In dry weather keep the hoe well at work in the established plots.

**ALPINE STRAWBERRIES.**—Where these fruits are in request plants should be raised annually from seed which can be sown now in pans or boxes of light soil and placed in a mild bottom-heat. When large enough to handle the seedlings should be pricked out 3 inches or 4 inches apart and gradually hardened off and planted out early in June. They can also be sown out of doors about the end of April and planted in their permanent quarters when large enough to handle, but with these scarcely any fruit will be obtained the first year, although they may be relied on to fruit freely the following season.

**PEACHES AND NECTARINES UNDER GLASS.**—The earliest fruits will now be in process of stoning, and care must be taken to avoid a check to the growth by careless ventilation, remembering that although the heat of the sun is getting daily more powerful, a too free admission of air causes cold draughts to circulate round the trees,

The shoots will require to be tied into their places on the trellis, removing all but those actually required for next season's crop and the necessary extension of the trees. In securing the shoots avoid pressure with the tying material, and give sufficient room for the free development of the young growths. Any injury to the young and tender bark is a prolific cause of gumming. Syringe the trees freely both morning and early afternoon on bright days with water heated to the same temperature as the house, and attend to the watering at the roots; give a stimulant as soon as the fruits have begun their second swelling. Weak liquid manure from the cow-shed or sulphate of ammonia and sulphate of potash in equal quantities, half-a-pound of each in 40 gallons of water will be suitable at this date.

Glasgow, N.B. THOMAS R. WILSON.

### KITCHEN GARDEN.

**SEAKALE.**—Where Seakale thrives are sufficiently "callused" proceed with the planting in ground well prepared by deep cultivation. If the crowns are to be lifted for forcing in heated structures, the roots should be planted in lines not less than 20 inches apart, and 12 inches apart in the line. For planting I prefer a spade to a dibber. My method is to run the garden line across the bed, and take out a little trench as upright as possible. Place the roots in the trench, and cover with soil from the second trench to the depth of about 2 inches. It will be found as the season advances, and as the soil settles, that the crowns will be level with the surface for proper development. Rake the bed as planting proceeds. Where permanent beds are to be made, the roots should be planted in clumps of such a size that a Seakale pot or tub will be able to cover it. The clumps should be planted in lines and far enough apart each way to allow of fermenting material being placed round the covers at the proper season. As the heads from the permanent beds are cut—and they should be cut to the surface of the ground—the pots and old fermenting material should be removed, leaving a slight cover on the roots, the fresh cuts of which should not be exposed to the cold winds; break off any growths that were too small for use. When all is cut, fork in a dressing of well-decayed manure, just covering the roots at the same time. Buds will form round the roots, and as growth proceeds disbudding should be done, leaving two or three of the strongest. If one or two year old roots raised from seed are preferred for planting the sharp pointed top should be removed with a knife, thus avoiding much trouble with flower stems. Seed can be sown now in drills 1 foot apart, or in clumps as recommended for permanent beds. If the latter style is adopted, a catch crop of some quick growing vegetable can be secured between the lines. The common purple is, perhaps, more generally grown than any other variety, but Beddard's Improved, a cross between the common purple and Lily White is to be recommended. Lily White is as its name implies, but the growth is smaller than the other varieties.

**POTATOES.**—The main crop of Potatoes should soon be planted. It is quite unnecessary to enumerate any varieties; it must be left to the discretion of the cultivator to select varieties best suited to the natural conditions. Some varieties succeed where others give a very poor return. The rows for main crop Potatoes should be 3 feet apart if space can be spared. The stock of Potatoes now in use must be frequently moved to check the sprouts from developing. Earth up Potatoes in pits with slightly warmed soil, the rows not being wide enough apart to allow of the usual practice of drawing up the soil.

**SAVOYS** make an agreeable change from the ordinary run of green vegetables in the autumn and winter; to obtain an early supply a sowing should be made at once of Dwarf Green Curled or Early Dwarf Uim. Make also a sowing of Autumn Giant Cauliflower.

**PRICKING OUT.**—Brussels Sprouts, Cauliflowers, &c., from earlier sowings must not be allowed to get too big before they are pricked out into cold frames. Lettuce can be pricked out in such a way that every second plant may be lifted in two or three weeks' time for transplanting out of doors, whilst the remainder are coming on earlier in the frame.

**TOMATOES.**—Keep the seedlings close to the glass to prevent the growth becoming drawn. Pot off singly when required into small pots, using a soil of good loam, fine mortar rubble, and wood ashes. If the seedlings have become drawn give the stems a gentle bend round the inside of the pot in such a way that the leggy stem is buried in the soil. Do not pot them very firm, and return to a place with a minimum temperature of 55°.

**TURNIPS.**—Successional sowings of small varieties of Turnips should be made at regular intervals. Give a dressing of wood ashes in the drills at the time of sowing. Birds, sparrows especially, are very destructive to all kinds of seedlings. A sharp look-out must be kept as the Turnips come through the ground, and if not convenient to net the bed, frequent dressings of soot and lime will be necessary. If larger Turnips are required, a breadth of Red Globe should be sown now; have the drills 12 inches apart.

Bryanston Gardens, Blandford. J. JAQUES.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**PLANTAINS IN A LAWN (A.W.).**—There are only two reasonable ways of getting rid of Plantains and other large weeds in lawns. Those who have plenty of cheap labour may dig them out, and after applying a rich top-dressing sow good grass seeds thickly not later than April. The other method, a cheaper one, and in our experience more efficient, is to use a weed-extractor charged with weed-killer. There are several weed-extractors on the market, and they vary a little in price. Most of the large garden sundry dealers stock them. The weed-extractors are very light and handy; anyone can use them. They are fitted with a hollow steel point, which, when thrust into the heart of the weed, discharges a small quantity of liquid weed-killer that destroys the plant, which can be removed without disturbing the ground. The misfortune those who have a Plantain-infested lawn find is that one season's work does not clear it. There are generally seeds in the ground, and these grow, so that a weedy lawn may take several seasons before all are cleared out. During the time the weed destruction is going on the grass must be encouraged. Top-dressings of rich soil are not always commendable, for the reason that seeds of weeds may be introduced that will give further trouble. Good results have often followed a top-dressing

of charred garden rubbish which has been passed through a half-inch sieve. Top-dressings of soot, half a bushel to the square rod, will be found useful. But the best result we have obtained has been from 4lb. of basic slag per square rod applied in autumn, followed in March by 4lb. of nitrate of soda.

**PLANTS FOR RHODESIA (Bartissod).**—You ought to get from nurserymen or the botanic gardens in Natal plants and seeds that are known to be suitable for such conditions as you describe. Mr. Leighton, nurseryman, King Williams Town, formerly of Kew, has a good collection, and would no doubt be able to supply many things. Generally, the conditions that suit *Grevillea robusta*, *Schinus*, *Begonia*, *Tree Ferns*, and *Roses* would suit most plants that are not truly tropical. You should get a copy of Woodrow's "Gardening in India."

**TRANSPLANTING WATER LILIES (F. J.).**—You may transplant the Water Lilies now. The unfortunate part is that you wish to remove them at all, for after a year in their present position the plants will, provided they were well planted, have become fairly well established. The plants are now practically dormant, and you will need to exercise some care in getting well below the rhizomes, if they are planted out, to avoid injury to the roots and rootstock. A good way of planting such things is to secure a wicker-made basket, place in it a bushel of strong loam and manure, and, fixing the plant to the basket, sink it into position. Had we known the variety we could have given you the most suitable depth of water to plant in. This, however, must be gauged by the size of the plant to some extent.

**SEEDS OF HARDY PLANTS (F. J.).**—None of the seeds mentioned in your list need be sown in bottom-heat except the *Lobelia*. The seeds of such genera as *Eremurus*, *Tritoma*, *Ostrorwakia*, *Iris*, &c., are best sown as soon as ripe, and in each case a cold frame will be found to answer well. Fresh seeds of these germinate quickly and freely, and the three first named should be allowed to remain for two seasons before being transplanted. Some of the seeds may lie dormant for months. Some of the rarer *Gentians* and *Meconopsis* are also erratic. All very small seeds are best not covered with soil. Seeds of bulbous plants, even though small, should be well covered with soil, and not less than half-an-inch deep. Seeds of *Lilies* and *Liliaceous* plants generally are best sown when ripe and in shallow drills if in quantity, and thinly, that they may remain a second year.

**TO INCREASE VIOLETS (Mrs. Mooney).**—The last week in March or the first week in April is the best time for propagating the Sweet Violet. The runners alone should be propagated, but each runner should have a few roots attached if possible. Prepare a small border in a shady position by adding a liberal quantity of leaf-mould and gritty sand. Dibble in the runners at distances of 3 inches apart, and deep enough only in the soil to make them secure; press the soil firmly round each runner as planting goes on. They should afterwards receive a good watering in order to settle the soil about their roots. They will not require water again until they have formed young roots, say, in a fortnight's time. In the meantime sprinkle them daily. By the middle of April the runners will have formed masses of new roots, and should be planted permanently. The best position is one facing east, giving shade from the fierce midday sun. This land should be prepared to receive them as soon as possible by deep digging and the application of a good dressing of well-decayed manure and leaf-soil. The plants should be planted in rows 2 feet apart, and 18 inches between plant and plant in the row. Water occasionally with weak liquid manure during summer, keep clear of weeds, and you should have strong plants by the autumn. Violets do not like artificial manures.

**HYACINTHS AFTER FLOWERING (Perplexed).**—You had better leave the Daffodils in beds alone after flowering, unless you want to take them up to make room for something else. When the leaves have died down take them up and replant in good fresh soil. We should not advise you to grow the *Rhynchospora* in pots again, but if you want to keep them, place them out of doors when the flowers are over, and keep well supplied with water until the leaves begin to turn yellow, then give less, and finally, when the leaves have fallen, discontinue. Repot in August or September.

**SOWING GENTIAN SEEDS (Tactus).**—Seeds of *Gentiana scabra*, *G. verna*, and *G. bavarica* should be sown as soon as possible after they are ripe. When sown in the autumn they germinate in a few weeks or in the following spring. When the seeds have been kept during the winter they get dry to a certain extent and take much longer to germinate. The seeds may be sown in well-drained pots or pans of sandy loam and leaf-soil, covering with soil to a depth of about one-eighth of an inch. These pots should be plunged in the cold frame in ashes or other material free from worms, and kept shaded as well as protected against heavy rain. *G. verna*, and especially *G. bavarica*, are bog-loving plants, and require plenty of moisture, so that the soil should never be allowed to get dry. There are at least two forms of *Gentiana scabra* in cultivation, one of which prefers a chalky soil, while the other likes granite.

**COLD HOUSE (C. H. Flecker).**—A difficult question to answer, but we conclude from your letter the structure is free from frost during the winter, in which case moderately tender plants would do well therein. You are not likely to get any Ferns to thrive under the conditions named, but one of the best plants for such a purpose would be *Stenotaphrum americanum variegatum*, better known as *S. glabrum variegatum*, a creeping Grass, which produces a tuft of leaves at every node. When running along the ground roots are produced from each tuft so that it will soon cover a considerable space. It is not, however, in this way that the *Stenotaphrum* is most valuable, but when suspended either in a hanging basket or similar position the long thong-like stolons with their tufts of leaves disposed at regular intervals hang down 4 feet or 5 feet. There was for a long time a fine basket of this in the reptile house at the Zoo, but whether it is still there we cannot say. It is of easy culture, thriving as it does in ordinary potting soil. Another plant likely to give satisfaction is *Ficus repens*, a neat yet free-growing climber which will hang as well as climb. *Begonia undulata* or *glaucochrysa* should do well under similar conditions, while of flowering trailers we can recommend *Campanula isophylla* alba, with white flowers, and *Campanula Mayrii*, in which they are blue. You speak of Sweet Peas being a failure, which is just what we should have expected, but *Tropeolum* of the Lobbianum section are likely to give during the summer far more satisfaction.

## THE GREENHOUSE.

**FERN FRONDS SHRIVELLED (J. D. Cowlishaw).** It is impossible to say what is the cause of the fronds of the Maidenhair Ferns having turned brown in the way yours have unless we have further particulars of the house in which they are grown and the treatment they receive. You say the watering has been attended to properly, so we presume bad watering cannot be the cause. Even once allowing plants to become dry at the root, however, is sufficient to cause them to shrivel. They may have been syringed with some insecticide, or the house may have been fumigated too strongly; the fronds are very tender and are most easily damaged, especially when they are young. You do not say what aspect the house has, whether it faces north or south; if it faces south or south-west the fronds may have been burned by the sun.

**SAND FOR CUTTINGS (G. B.).**—The sand on the top of cutting pots is not put there to prevent air getting to the soil, for the soil itself is more impervious to air than a layer of sand. The reason that sand is used for the purpose is twofold. Firstly, from its gritty and open nature, sand is very favourable to the development of roots, and if a layer is put on the top of a cutting pot, each insertion of the dibber to make a hole for the cutting carries a little sand with it, and this substance is deposited at the bottom of the hole, when the base of the cutting rests upon it. Secondly, fungus makes little or no headway in pure sand, and as in close propagating cases the leaves of some cuttings are apt to decay, the spawn therefrom is much less destructive than when sand is not used. Though its use is perfectly justified in the case of cuttings, that stand some time before they root, sand is by no means so essential as it is by many supposed to be for plants that are easily struck. It has one drawback, and that is the top covering of sand

renders it difficult to ascertain the exact state of the soil as regards moisture.

**CALLA ELLIOTIANA (Dick).**—As it is now their season of growth, the young plants of *Calla elliotiana* should be potted off as quickly as possible. At first use pots 3 inches or 4 inches in diameter. Make up a good compost of two parts loam to one part well-decayed and dried cow manure, one part leaf-mould, and half a part of sand. A warm greenhouse will suit them best. They require a good deal of water when growing freely. They grow quickly at this season, and will soon be ready to shift into pots 5 inches in diameter, which will be large enough for them the first year. During the winter they must be kept dry, or nearly so, in a temperature of 50° to 55°, and about the middle or end of January must be shaken quite clear of the old soil and repotted. This *Calla* is, when growing freely, very liable to the attacks of aphides or green fly, and unless these pests are kept in check its culture will not prove a success. During the second season pots 6 inches in diameter or even larger may be used.

**CLEODENDRON FALLAX (W. H. L.).**—The seed of *Cleodendron fallax*, even when fresh, is rather irregular in germinating, and in a temperature of 60° to 70° it takes from a fortnight to a month to appear above ground. We sowed a considerable quantity a month ago, and while most of the young plants were above ground in a fortnight, the remainder have been gradually cropping up from that time till now. The seeds do not need soaking or cutting.

## ORCHIDS.

**WATERING ORCHIDS (W. H. Workman).**—To water Orchids correctly the grower must consider what variety or varieties he is growing, and no rule can be laid down that will suit all kinds. Some Orchids want constant moisture, others require a dry treatment during some part of the year, and much water at other times. After a plant has been newly potted a slight damping of the moss to give it a start is helpful, only be careful not to give too much. When a plant is growing freely, and the roots have a good hold of the compost, then most water is required. When growth is completed, and the plants are not developing flower, a little water will suffice. In many places the water used is very detrimental to the moss. We seldom find much trouble in keeping sufficient life in the moss for the well-being of the Orchids, although some plants have no water for weeks. If the houses are kept moist, as they should be, that will maintain the moss alive for a long while when the plants themselves are quite dry.

**HYBRID ORCHIDS (Lycaete).**—*Cattleya calummata* is a hybrid between *C. intermedia* and *C. Aolandiae* and should flower during April and May. *Laelio-Cattleya gottoliana* magnifies is a cross between *C. Warneri* and *Laelia tenebrosa*, a very beautiful Orchid, and should flower about June. *Laelio-Cattleya haroldiana* is a hybrid between *L. tenebrosa* and *C. hartyana*; this flowers in July and August. They are all very good, and if in good health in 6-inch pots should produce fine flowers. All are well-known hybrids.

## ROSE GARDEN.

**ROSES UNDER TREES (Dublin).**—We do not know what you mean by growing a Rose "spiked" down, but in any case it is very doubtful if you would grow the Moss Rose underneath the Horse Chestnut tree. During summer, even though the branches of the tree are a good height from the ground, the plants would be in almost continual shade. If you wish to plant a climbing Rose to grow up into the tree, it must be planted at the outside edge of the spread of branches. It is no use planting it anywhere near the trunk expecting it to make its way through the branches. The only chance will be to dig out a good-sized hole near the outside edge of the tree, filling this with good soil. By planting the Rose there you may get it to grow on the outside of the tree. One of the Roses most likely to succeed in this position is the rugosa hybrid *Conrad F. Meyer*, and you might try the Musk Rose, *Rosa moschata*, The Garland, or Carmine Pillar. You

can make a very good hedge of the *Cupressus*. It does not make a good flat-topped hedge of the ordinary kind, as the growth is distinctly pyramidal. They should be cut to a point. They can be trimmed at any time, preferably in the spring or early summer, care being taken not to cut the base too hard. The leading shoots may be topped annually.

**ROSES ON BANK (Puzzled).**—It would be far better to cut back the *wichuriana* Roses (of which *Dorothy Perkins* is a variety) to within about 6 inches of the base, and so encourage strong young growths which are usually freely produced; in fact, they are often so numerous that some need thinning out. If the plants are good strong ones with several shoots, you might leave two of these to flower without doing much harm, but the best thing to do is to cut them back. If the growths are weak it is essential. Shorten the growths of the China Rose to about half.

## FRUIT GARDEN.

**VINE LEAVES (J. T. C.).**—The damage caused to the foliage and young shoots of your Vines is the result of an attack by the Vine weevil, unless by any chance you have been fumigating theinery with too strong a solution of insecticide. We have seen similar results follow the use of this when the leaves were so tender and young as those of yours. As you had maggots among your Grapes last year, we feel sure the injury has been caused by an earlier visit this year of the same insect. These weevils do the damage at night only. They hide themselves during the day in the crevices of the walls or in the soil between the border and the wall. The way to destroy them is to take a lantern at night—say between ten and eleven o'clock—examining every leaf and shoot carefully. They are then easily detected and killed, and may be soon got rid of; but if left alone they will soon destroy the Vines and crop. As a precaution against their reaching the Vines from the ground bands of sacking should be smeared on the outside with tar and tied round the stems of the Vines about 9 inches above the soil. It will be well also to paint a bar of tar 3 inches wide all along the wall at the back of the Vines the same distance from the ground to prevent their gaining access in this way. They cannot fly.

## KITCHEN GARDEN.

**RHUBARB (T. Maloney).**—This can be obtained from seed sown in rich land in April. Sow thinly in drills 2 feet apart, and thin the seedlings early. You may have good roots in two seasons, but to do this requires good culture. It would pay you to divide roots for next season. At the same time you could sow for future use. To divide lift the old stools; take away those pieces with a good crown and as many roots to each as possible. A good-sized root will often give a dozen crowns. These should then be planted in well-prepared land in rows 3 feet apart, half that distance between the sets. Plant firmly, and have each crown just under the surface-soil. Mulch with rotten manure, and you will then get good roots for next autumn. For forcing you should select an early variety.

**PRIZE FOR CHOICE VEGETABLES (C. A. T.).**—"I wish to give a special prize of £1 for the best basket of vegetables, six varieties. I do not wish the prize to be given for size, as my object is to encourage the growth of small, clean vegetables, fit for use at table, and not for the large, coarse, overgrown specimens sent as one often sees at country shows, and which are neither good to eat nor to look at." We consider the above a very sensible and useful prize, and would welcome the same principle being extended to many other exhibitions of vegetables, where we consider that merely abnormal size in vegetables is a defect rather than a desideratum. As regards the drafting of the prize, we think the following would meet the case: Special prize of £1 for the best



basket of six distinct kinds of vegetables, two varieties of Potatoes allowed (round and kidney), adding the following: "In judging this class quality alone must be the first consideration, mere size being of no account."

### MISCELLANEOUS.

**TO KILL ANTS (T. W., Forbes).**—A great deal may be done towards destroying ants by pouring hot water or diluted carbolic acid into their runs, while Valls' Beetle-ute, referred to in THE GARDEN of the 17th ult., page 108, is also very good for the purpose.

**MANURE FOR HEAVY SOIL (Westward Ho).**—Stable manure is just the thing for heavy soils, but, as there are wood-chippings mixed with yours, we cannot advocate its use. Decaying wood always generates fungus to a greater or lesser extent, and this is very likely to cause you trouble. The same objections to its use in the allotment garden hold good for flower-beds.

**LAWN CUTTINGS (M. H. X.).**—The best way of dealing with the above in hot weather in summer is to take the grass-box off the mowing machine, and let the cut grass be distributed over the lawn; it will nourish the surface-roots of the grasses and help to prevent the surface being dried up. In rainy and damp weather, when the grass grows fast, this plan is not recommended. It should then be collected in the box and taken to the manure yard, spreading it over the manure and mixing with it; it helps materially to swell up this necessary commodity in a garden. If there are cow-keepers in the neighbourhood, they will most likely be glad to take it away and give a trifle for it. It should not be wasted.

**PLANTS IN SHADE (S. T. Prosser).**—Unless you do something to improve the soil it is almost hopeless to expect anything except some of the commoner shrubs to grow there. Very clayey ground shaded most of the day does not afford much scope for plant-growing. The tall annual Sunflowers might grow there as well as some of the strong-growing perennial ones. You might try the Japanese Anemone, *Helenium striatum*, or *Glaucidium*. Such shrubs as the flowering Currant, *Laurustinus*, or *Veronica* would be as likely to succeed as anything, but we cannot with confidence recommend anything unless the soil is well dug and improved by the addition of road-scrappings, wood-ashes, brick-rubble, and other such material.

**SPHAGNUM MOSS (Notice).**—In the first place, the sphagnum you are using is not the best; it is the variety that grows in low and wet grounds. The best to use is the sphagnum from the Welsh mountains; this is shorter in growth and much larger headed, yet many use the other, and it can be made to look quite well on the plants if you chop it up into quite small pieces. When treated thus it also grows better. Another important point to make the moss grow is always to water with rain water. Place your Orchids together. Many perhaps of those you have suspended would do equally well, and perhaps better, on the stage; or you might hang them over the pathway so that the drip from them does not affect the other inmates of the house, and thus get over your difficulty.

**BONE-MEAL FOR LAWN DRESSING (Lancaster).**—It is rather late to apply bone-meal to a lawn now, as it is not readily soluble. If used, however, let it be at the rate of from 3lb. to 4lb. per rod area. We should prefer now to give the grass a thick smothering of soot. Mere artificial manure dressings give grass temporary stimulus, but they add nothing to the rooting medium. For that reason a top-dressing of fine soil, thoroughly decayed manure, or similar material when dressed on a lawn in the winter becomes thoroughly pulverised, then washes into the grass and becomes additional rooting area. We have found native guano, mixed with an equal quantity of fine soil, and dressed at the rate of a bushel or so per rod, to do really good service to grass. The quickest artificial manure for grass just now would be sulphate of ammonia applied in April at the rate of 3lb. per rod.

**TONKS' MANURE FOR BULBS (P. A. Collins).**—It would be advisable to avoid giving the bulbous plants you name the same dressing of this manure that you apply to the Roses, but a more moderate application would do them no harm. It is in such circumstances that planting other subjects among Roses turns out to be a disadvantage. We think you have been misinformed as to the amount of Tonks' manure usually applied to Roses. It should be a quarter of a pound to the square yard—not 1lb. There is no advantage in applying the manure all over the ground if the Roses are planted rather wide apart. If you make a circle, say, 12 inches in circumference, having the Rose bush in the centre, and apply the manure at the rate of half an ounce for each plant, this would be equal to the rate of a quarter of a pound for a square yard. By so doing you would not be compelled to give the bulbous plants any of the manure.

**BURNING CLAY SOIL (Ballast).**—If in draining your clay land you make a well to receive the drainage, would it not be best rather to form a large underground cistern to which a small iron pump could be attached, as in hot weather you would certainly find this stored water of great service. With respect to the burning or charring of the clay that is excavated, you must prepare in the open, and in a direction if possible in which the smoke will give no annoyance, a good body of solid wood, some of which should be large, and having wood shavings underneath. Over that place a layer of clay in spits, so that the fire-heat can circulate. Upon that put a thin layer of small coal, and a further layer of clay spits, serving a few other layers in the same way. When a really big body of fire is thus formed the heap may be greatly enlarged without the coal, although thin layers help combustion. When all is charred and cold the material will make good footpaths.

**WIREWORM IN SOIL (J. B., Huddersfield).**—By continually stirring the soil and searching for the wireworm you ought to be able to catch a good many. Such manures as soot, lime, salt, nitrate of soda, and sulphuric acid are cheap and useful, while they are destructive to wireworm. You may trap them by means of sliced Potatoes placed (with a short stick attached) 1 inch or so beneath the soil. Examine every day, and you will probably find some wireworms half buried in the Potato.

**NAMES OF PLANTS.—J. R. Droop.**—There is no doubt that the plant referred to by you is *Chorosema ilicifolium*, a native of Australia. It is in no way related to the Holly, but is a member of the large order Leguminosae, of which the Broom, Furse, Laburnum, and Pea are well-known examples. If you look closely into the flower, you will see that its conformation is very like that of the Pea.

**G. H. Parker.**—Typical *Talamonius plenius*. This differs more or less in shape according to soil and locality. —**T. B.**—Ordinary Double Van Slon or *Talamonius plenius*. Countess of Annesley is a wild Irish Daffodil, and was originally growing near to Double Van Slon, so a slight mixture sometimes can be understood. —**H. H. B.**—1, *Eriocoma Sandersi*; 2, *Episcia metallica*; 3, *Hoffmannia refulgens*; 4, *Pellonia daveana*; 5, *Casuarina* sp.; 6, *Raphiolepis japonica*. —**F. Clay**.—1, *Abies nordmanniana*; 2 and 3, *Cedrus Deodara*; 4, *Sequoia sempervirens*; 5, *Abies Picea*; 6, *Cupressus lawsoniana*. —**A. C. H.**—The flowers were smashed beyond recognition. No doubt they are *Zygopetalum*; beyond that we can say nothing.

**C. Frost.**—*Asparagus deflexus*; and the shrub is the Sweet Bay (*Laurus nobilis*).

## SOCIETIES.

### READING AND DISTRICT GARDENERS' ASSOCIATION.

THIS flourishing society has made an excellent start for the year 1906 in connexion with its meetings and the usefulness of the subjects discussed. At the first meeting Mr. C. Foster, the well-known instructor at the Reading College Gardens and chairman of the association for the year 1906, gave a lecture and demonstration with regard to "The Influence and Use of Different Stocks in Fruit Culture and Early Methods of Training." This proved of an exceedingly useful and practical character, not only to the junior members, but to the seniors as well. The second meeting was devoted to "Winter-flowering Violets," and Mr. F. C. Legge, a representative from the Redhill and Reigate Gardeners' Association, gave a very practical discourse on the winter culture of this popular and beautiful flower. At the third meeting Mr. F. Townsend of Warfield Hall Gardens treated with "Winter-flowering Begonias," and this formed the subject of a very interesting evening. The exhibits have been exceptionally good, including displays of flowers and fruit, viz.: *Freesia*, Mr. F. Bright, Whiteknights Park; Apples (*Nouveau France*, *Reinette d'Ananas*, and *Pomeroy Saxess*), Mr. J. Pound, Caversham; *Cyclamen*, Mr. F. Townsend, Warfield Hall; *Violets* (*Comte de Brassa*, *Marie Louise*, *Neapolitan*, *Mrs. J. J. Astor*, &c.), Mr. W. Tarnham, Culham Court; *Bouquets of Princesses of Wales Violets*, Mr. T. J. Powell, Park Place; *Violets* (*La France*, *Admiral Avelin*, *Princess of Wales*, and *Marie Louise*) and *Mrs. Fogg Chrysanthemum*, Mr. A. G. Nichols, Strathfield; *Lilac* *Charles X.*, Mr. W. Weston, Purley Park; Apples (*Santon House*, *Blenheim Orange*, *Ribston Pippin*, *King of Tompkins County*, &c.), Mr. J. Crook, Forde Abbey; *Italian Hyacinths*, Mr. F. Lever, Hillside; *Winter-flowering Begonias*, Mr. F. Townsend, Warfield Hall, and Mr. W. J. Townsend, Sandhurst Lodge. New members have been elected at each meeting.

The fortnightly meeting of the above association was held on the 15th ult., Mr. C. Foster presiding. The subject for the evening was "The Story of Germ Life," and was introduced by Mr. H. Coleby, hon. secretary of the Wargrave Gardeners' Association. The subject was of a most instructive character. The discussion which followed was sustained by Messrs. Foster, Powell, Tarnham, Fry, Nave, Cox, Sandwith, Alexander, Pope, Winsor, and Murrell. There were two exhibits, viz., cut blooms of *Polyanthus Narcissus Grand Monarque*, the finest variety of this class for early forcing, staged by Mr. F. Townsend, Warfield Hall Gardens; and eighteen specimen plants of *Pearl Primula*, by Mr. J. A. Ball, Shiplake Court Gardens. These were considered to be the finest *Primulas* ever placed before the members; they were entered for the association's certificate of cultural skill, and the judges had no alternative but to award it.

### THE HORTICULTURAL CLUB.

#### A TALK ABOUT HYBRID ORCHIDS.

ON Tuesday, the 20th ult., the monthly dinner of this club was unusually well attended, under the presidency of Sir John Llewellyn, Bart., owing to the presence of a large number of the chief Orchid specialists in view of the promised exhibition of a large number of lantern slides, illustrating the cult from the hybrid point of view, by Mr. H. J. Chapman, gardener to Norman Cookson, Esq., of Wylam-on-Tyne. Whatever expectations might have been entertained regarding the exhibition, they were undoubtedly far and away surpassed by the reality, for about 150 splendid photographs, beautifully coloured by hand, were shown in rapid succession on the screen, though not so rapidly but that the lecturer named them and indicated the various characters patent in the hybrids as derived from the diverse parental forms shown in conjunction or separately. The photographs in every case were wonderfully sharp and skilfully tinted after Nature, and were all

the work of Mr. Chapman himself. As the screen was large and definition good, the effect of a magnificent Orchid flower standing out in brilliant relief, and in some cases 5 feet or 6 feet across, may be imagined, while complete sprays of rare *Odontoglossum*, with blossoms nearly 1 foot across, were equally striking. It was recognised on all hands that for perfection of light and shade, especially of pure white or albino types, the photographs were unsurpassable, while to an outsider the marvellous flowers themselves scarcely excelled the marvellous grip of his subject which the lecturer evinced in his remarks on their names, origin, and peculiarities of detail. Among the most interesting slides were series illustrating the predominance of the characters of *Selenipedium Schlimii* in its hybrid offspring, that of *Odontoglossum harrana* in three generations when crossed with *O. crispum* and with *O. Pescatorei*, the latter cross resulting in *O. Rolfeae*. *O. Pescatorei* x *O. crispum* yielded *O. ardentissimum*, a finely spotted form being shown in conjunction with an absolutely pure white one derived from the same seed-pod; second and third generations of this section of hybrids were shown, and the same of other interesting combinations. These were followed by a remarkable series of seven slides illustrating the successive developments of a grand spike of *O. c. cooksoniae*.

The exhibition was accompanied by the lecturer's suggestion, by notes from those present on his exhibit, and thus emanating as they did from our most recognised experts, amateur and professional, were extremely interesting. In the subsequent discussion Messrs. Norman Cookson, Gurney Fowler, Rolfe, Watson, Veltch, Bunyard, jun., Drury, and Thwaites took part, the difficulties experienced in hybridising very diverse species or even genera forming the main lines of discussion. In this connexion it was pointed out that the correlation between the size of the pollen grain and the length of the stigmatic channel to be traversed to reach the embryo seeds frequently failed where diverse union was aimed at, the pollen tube consequently failing to reach its goal. This fact, when recognised, determined the choice of the seed-bearer; the plant with the larger pollen being chosen as the fertilising medium to overcome the difficulty, while the reciprocal cross would be in vain. The theory was broached that this could be overcome by an abundant supply of the smaller pollen, but a knowledge of the physiological conditions ruling fertilisation entirely negated this view, though Mr. Bunyard, jun., suggested that with an increase in number, a survival of the fittest due to individual differences in the grains might come in as a factor. Mr. Watson made some humorous remarks on the botanist's horror of hybrids owing to the difficulty of systematising their arrangement, while the amateur who ignored the hard-and-fast botanical rules laid down by systematists but not by Nature, often succeeded in doing the "impossible," upon which the scientist stepped in and explained to him "how it was done." A very hearty vote of thanks concluded the meeting.

### PANGBOURNE AND DISTRICT GARDENERS' ASSOCIATION.

THE first annual dinner of this association took place at the New Hall, Pangbourne, recently. Mr. Leonard Sutton presided over a company of fifty. Mr. Clark proposed the health of their president, Mr. L. Sutton. Mr. L. Sutton, in responding, said these associations did a lot of good by enabling gardeners to visit one another's gardens. It behoved every one of them to improve their gardens in every possible way, and useful knowledge was gained by these visits. A most pleasant evening concluded with hearty votes of thanks to the chairman and secretary (Mr. T. Fortane), who was responsible for the excellence of the arrangements, which gave the greatest satisfaction to all present.

### EAST ANGLIAN HORTICULTURAL CLUB.

THE members gathered in strong force at the March meeting of this club, held at the Shirehall Hotel, Norwich; included were most of the prominent horticulturists of the district. Mr. Horace J. Wright came down from London and delivered a most interesting discourse upon "The Evolution of the Sweet Pea." Mr. E. Peake, elementary school head-master, told the meeting he was letting his boys have in their school garden a limited number of seeds to get the best results from wide planting. The exhibition tables were well filled, and in the floral classes very gay. A prominent feature was the competition for a silver cup, presented by Messrs. Girling for three sectional exhibitions. The first was for three pots of bulbous plants. Here Mr. F. Williams, gardener to Louis Tillet, Esq., M.P., gained most points. Mr. W. Shoemith, gardener to F. W. Harmer, Esq., Cringleford, showed a fine *Cypripedium Boxallii* and a bunch of hybrid *Hellebores*. Mr. G. Moore, Hetherst, sent some fine late Apples, and good Broccoli and Beet were to be seen in the vegetable section.

### BROUGHTY FERRY.

THE usual meeting was held on the evening of Tuesday, the 20th inst. The chair was occupied by Mr. William Grant, Fernhall, and there was an excellent attendance of the members of the association. A most interesting and able address on "The Pod-bearing Plants of the British Flora" was given by Mr. Robert Dow, Longforgan, whose knowledge of the subject was amply evidenced by the lecture, which was full of information regarding a class of plants of much value and beauty. The lecture was illustrated by the exhibition of a number of specimens of the plants, and by a well-executed illustration on the blackboard. Mr. Dow was awarded a cordial vote of thanks for his lecture.



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N.B.—NEW ROSES: Lady Gay, 3/6 to 10/6 each; Waltham Bride, 7/6; Waltham Rambler, 1/6 to 5/-; David R. Williamson, 7/6; Dr. William Gordon, 7/6; E. T. Cook, 7/6; Earl of Warwick, 3/6; and many others 2/6 to 3/6 each.

### EVERGREENS.

A magnificent stock of well-transplanted plants from 2 to 10 ft. high for Spring planting, at very moderate prices. Descriptive Catalogue free on application.

## HARDY CLIMBING PLANTS IN POTS.

Large collections of Ampelopsis, Clematis, Honeysuckles, Ivies, Jasmines, Vines, Wistarias, and all other hardy climbers, 9/- to 18/- per dozen; extra strong, 24/- to 42/- per dozen.

## HERBACEOUS PLANTS

in great variety, including Phlox, Paeonies, and all other showy and popular kinds. Priced Descriptive Catalogue on application.

**WM. PAUL & SON,**  
Pauls' Royal Nurseries,  
WALTHAM CROSS, Herts.

## REMARKABLE OFFER OF VEGETABLE SEEDS, ALSO CHRYSANTHEMUMS & DAHLIAS.

Every gardener should remember the great and important fact that "our seeds grow," and those who wish to keep up a continuous supply of vegetables throughout the year cannot do better than send to us for their seeds. No one can possibly give finer collections at the same price, and if the cost of our selected boxes is compared with general catalogue prices, it will be found that purchasing from us means a saving of 33 per cent.; or, in other words, that two shillings spent with us gives as good or better results than three shillings expended elsewhere.

ALL BOXES SENT CARRIAGE PAID SECURELY PACKED FOR CASH.

### OUR 2/6 BOX

contains nothing but first-class seeds.

- |                          |                           |
|--------------------------|---------------------------|
| 1 pint Early Peas        | 1 pkt. Leek (Musselburgh) |
| 1 pint Broad Beans       | 1 oz. Mustard             |
| 1 oz. Beet               | 1 oz. Onion (W. Spanish)  |
| 1 pkt. Broccoli          | 1 oz. Parsley             |
| 1 pkt. Cabbage           | 1 oz. Parsnip             |
| 1 oz. Carrot             | 1 pint Late Peas          |
| 1 oz. Cress              | 1 oz. Radish              |
| 1 pkt. Lettuce (Cabbage) | 1 oz. Turnip              |

Two boxes to one address, 4/9; or six for 14/-.

### OUR 5/- BOX

A Marvellous Selection, and constitutes grand seed value.

- |                            |                          |
|----------------------------|--------------------------|
| 1 pint Peas (Early)        | 1 pkt. Celery (Red)      |
| 1 pint Peas (Late)         | 2 ozs. Cress             |
| 1 pint Broad Beans         | 1 pkt. Cucumber          |
| 1 pint French Beans        | 1 oz. Leek (Musselburgh) |
| 1 pint Runner Beans        | 1 pkt. Lettuce (Cos)     |
| 1 oz. Beet                 | 1 pkt. " (Cabbage)       |
| 1 pkt. Broccoli            | 2 ozs. Mustard           |
| 1 pkt. Brussels Sprouts    | 1 oz. Onion              |
| 1 pkt. Broccoli (Early)    | 1 oz. Parsnip            |
| 1 pkt. " (Late)            | 1 pkt. Parsley           |
| 1 pkt. Cabbage             | 1 oz. Radish (Long)      |
| 1 pkt. " (Red)             | 1 oz. " (Turnip)         |
| 1 oz. Carrot (Early)       | 1 pkt. Savoy             |
| 1 oz. " (Late)             | 1 oz. Spinach            |
| 1 pkt. Cauliflower (Early) | 1 pkt. Tomato            |
| 1 pkt. " (Late)            | 1 oz. Turnip             |
| 1 pkt. Celery (White)      | 1 pkt. Veg. Marrow       |

### OUR 7/6 BOX.

We challenge comparison between this offer and any offer made by anyone else; and, when the quality of seed is also taken into consideration, we are convinced that we shall be simply overwhelmed with applications.

- |                               |                          |
|-------------------------------|--------------------------|
| 5 pints Peas (for succession) | 2 ozs. Cress             |
| 1 pint Broad Beans            | 1 pkt. Cucumber (Ridge)  |
| 1 pint French Beans           | 1 pkt. Endive (Curled)   |
| 1 pint Runner Beans           | 2 pkts. Herbs            |
| 1 pkt. Beet                   | 1 oz. Leek (Musselburgh) |
| 1 pkt. Broccoli (Curled)      | 1 pkt. Lettuce (Cos)     |
| 1 pkt. Brussels Sprouts       | 1 pkt. " (Cabbage)       |
| 1 pkt. Broccoli (Early)       | 1 oz. Mustard            |
| 1 pkt. " (Late)               | 1 oz. Onion (W. Spanish) |
| 1 pkt. Cabbage                | 1 pkt. Parsley           |
| 1 pkt. " (Red)                | 1 oz. Parsnip            |
| 1 oz. Carrot (Early)          | 2 ozs. Radish            |
| 1 oz. " (Late)                | 1 pkt. Savoy             |
| 1 pkt. Cauliflower (Early)    | 1 oz. Spinach (Summer)   |
| 1 pkt. " (Late)               | 1 oz. " (Winter)         |
| 1 pkt. Celery (White)         | 1 oz. Turnip             |
| 1 pkt. " (Red)                | 1 pkt. Tomato            |
|                               | 1 pkt. Veg. Marrow       |

### SPECIAL BOX FOR EXHIBITORS.

Price 8/9 post free for cash.

- |  |                                 |
|--|---------------------------------|
| 4 pkts. Choice Exhibition Peas         | 1 pkt. Celery, Giant Red        |
| 1 pkt. Broad Beans, Champion Long Pod  | 1 pkt. Leek                     |
| 1 pkt. Runner Beans                    | 2 pkts. Lettuce                 |
| 1 pkt. Dwarf Beans                     | 1 pkt. Onion, Alisa Craig       |
| 1 pkt. Beet, Extra Select Dark Red     | 1 pkt. Parsnip, Hollow-crowned  |
| 1 pkt. Brussels Sprouts                | 1 pkt. Parsley, Moss Curled     |
| 3 pkts. Cabbage, Giant Red             | 2 pkts. Radish                  |
| 1 pkt. Cauliflower                     | 1 pkt. Tomato, Up-to-Date       |
| 1 pkt. Carrot, Long Scarlet Exhibition | 1 oz. Turnip, New Model         |
| 1 pkt. Cucumber, Telegraph             | 1 pkt. " Golden Ball            |
|  | 1 pkt. Veg. Marrow (Long Green) |

### OUR 10/- BOX.

Another wonderful collection that cannot fail to be greatly appreciated.

- |                         |                    |
|-------------------------|--------------------|
| 5 pints Peas            | 1 pkt. Kale        |
| 1 pint Broad Beans      | 1 pkt. Leek        |
| 1 pint French Beans     | 2 pkts. Lettuce    |
| 1 pint Runner Beans     | 3 ozs. Mustard     |
| 1 pkt. Beet             | 2 pkts. Onion      |
| 2 pkts. Broccoli        | 1 pkt. Parsley     |
| 1 pkt. Brussels Sprouts | 1 pkt. Parsnip     |
| 3 pkts. Cabbage         | 2 ozs. Radish      |
| 2 pkts. Cauliflower     | 1 oz. Savoy        |
| 2 pkts. Carrot          | 2 ozs. Spinach     |
| 2 pkts. Celery          | 1 oz. Turnip       |
| 4 ozs. Cress            | 1 pkt. Tomato      |
| 2 pkts. Cucumber        | 1 pkt. Veg. Marrow |
| 1 pkt. Endive           |                    |

### OUR 21/- BOX.

The contents of this box can be varied if desired to make up same value.

- |   |                                    |
|---|------------------------------------|
| 16 pints Peas (Early, Medium, and Late) | 2 pkts. Gourd or Pumpkin           |
| 3 pkts. Broad Beans                     | 4 pkts. Herbs (Sweet and Pot)      |
| 1 pint French Beans                     | 1 pkt. Leek (Giant)                |
| 1 pint Runner Beans                     | 3 pkts. Lettuce (Cos and Cabbage)  |
| 1 pkt. Beet (Dark-leaved)               | 6 ozs. Mustard (White)             |
| 1 pkt. Broccoli (Curled)                | 1 pkt. Melon (chole)               |
| 1 pkt. Brussels Sprouts                 | 4 ozs. Onion (White Spanish, etc.) |
| 3 pkts. Broccoli (Early and Late)       | 1 oz. Parsley (Fine Curled)        |
| 3 pkts. Cabbage (choice sorts)          | 2 ozs. Parsnip (Hollow-crowned)    |
| 3 ozs. Carrots (Intermediate, etc.)     | 4 ozs. Radish (Long and Turnip)    |
| 2 pkts. Cauliflower (Choice)            | 4 ozs. Spinach (Round and Prickly) |
| 2 pkts. Celery (Red and White)          | 1 oz. Savoy (Drumhead)             |
| 8 ozs. Cress (Plain and Curled)         | 2 pkts. Tomato                     |
| 2 pkts. Cucumber (Ridge and Frame)      | 3 ozs. Turnip                      |
| 1 pkt. Endive (Curled)                  | 1 pkt. Veg. Marrow                 |

### SPECIAL BOXES OF PEAS.

- |                           |                        |
|---------------------------|------------------------|
| 6 pints, selected ... 2/6 | 6 quarts, selected 4/9 |
| 12 " " " " 4/9            | 12 " " " " 9/-         |
| 18 " " " " 7/-            | 18 " " " " 13/-        |

The varieties comprise all the leading and newest sorts, and will be found 50 per cent. under usual prices. We are anxious to get all readers of this paper to prove what thousands have already proved, viz., that "Our Seeds Grow." Send postcard for our New Seed List or New Chrysanthemum and Dahlia List, and same will be sent post free.

## EXTRAORDINARY OFFER OF CHRYSANTHEMUMS AND DAHLIAS.

We are making a most extraordinary offer, which we are confident will be received with approval and appreciation by all chrysanthemum and dahlia growers who wish to have the finest and newest varieties of these favourite flowers.

### CHRYSANTHEMUMS I I

12 Grand new varieties for 6/-, carriage paid. Mrs. J. M. Darby, Mrs. T. Dalton, Mrs. A. F. Seabrook, Walter Jinks, Mrs. J. Dunn, Old Gold, Embleme Poitvine, Mme. Oberthur, J. H. Silsbury, C. Montigny, Mrs. A. H. Lee, Marshal Oyama.

12 Splendid new Early-flowering varieties for 4/-, carriage paid.

Beacon, Cyril Day, Eleanor, Freedom, Firefly, H. H. Crane, Mrs. A. Cookson, "Jimmie," Pride of Hayes, Perle Châlonaise, Blush Beauty, Champ. d'Or.

12 Choice Exhibition kinds, 3/-, carriage paid.

12 Choice kinds for cutting for 2/6 carriage paid.

12 Xmas Flowering varieties for 2/6, carriage paid.

12 Lovely Single varieties for 2/6, carriage paid.

25 Finest Out-door kinds for 3/-, carriage paid. All chrysanthemums rooted and properly named.

### Daotus Dahlias Given Away I I

The following are Pot-roots, which produce earliest blooms, and may also be used for propagating:

12 Magnificent varieties, 7/6 carriage paid. To all purchasers of this selection a FREE GIFT is made, of a root of the champion dark kind, W. Hopkins.

12 Choice varieties, 5/- carriage paid. With this selection a root of the splendid scarlet H. W. Sillem is offered as a FREE GIFT.

12 Older kinds, all good, 3/-, carriage paid.

See our previous offers OF

## CARNATIONS

At Half Price, ALSO

## SWEET PEAS & BULBS.

Send postcard for our New Seed List or New Chrysanthemum and Dahlia List, and same will be sent post free.

**FREDERICK CARTER & SONS,**  
WOKING



### ECKFORD'S GIANT SWEET PEAS

are the Purest and most Vigorous Strains ever produced. Genuine only direct from Headquarters.

50 Seeds each of 12 Finest Giant Exhibition Varieties (separate and named), 2/6 post free; or 24 for 5/6.

#### 1906 NOVELTIES.

Queen Alexandra, the Wonderful New Giant Scarlet. Per packet, 2/6. Henry Eckford, the Grandest Novelty ever offered. Bright Giant Orange. Per packet, 2/6. Sybil Eckford, Beautiful Rich Apricot and Lemon Effect. Per packet, 1/-.

#### ECKFORD'S SPECIAL OFFER.

To popularise these splendid New Strains we will send one packet of each, together with 12 finest Giant Exhibition varieties (separate and named), post free for 7/6. A booklet "How to Grow and Show Sweet Peas," free with every order.

#### ECKFORD'S CULINARY PEAS.

Remarkable results. Enormous yield. The most Hardy and Prolific Strains ever offered. Winning golden opinions everywhere. Catalogue tells you all about them.

VEGETABLE AND FLOWER SEEDS. Big Variety of Tested and Carefully Nurtured Strains. See full particulars in List. Hold your mind until you've seen it.

HENRY ECKFORD, F.R.H.S., Sweet Pea Specialist, Wem, Shropshire.

BEAUTIFULLY ILLUSTRATED  
**CATALOGUE**  
SENT POST FREE  
SEND FOR ONE TODAY

## ROYAL HORTICULTURAL SOCIETY.

THERE was a delightful exhibition on Tuesday last, the 3rd inst., at the Royal Horticultural Hall. Alpine flowers, Daffodils, Roses, shrubs, and Orchids were all well shown.

## FLORAL COMMITTEE.

Present: Mr. Marshall (chairman), Messrs. James Hudson, T. W. Turner, John Green, C. R. Fielder, C. Bick, Charles Jeffries, Charles Dixon, Charles E. Pearson, Charles E. Shea, W. P. Thomson, William Cuthbertson, E. H. Jenkins, George Paul, R. Hooper Pearson, H. J. Cutbush, J. W. Barr, and George Gordon.

A beautiful and interesting group of hardy plants from Messrs. Cutbush and Sons, Highgate, included pretty masses of *Aubretia* Dr. Mules, *Adonis amurensis* fl. pl., many species and varieties of *Primula*, the lovely yellow *Stylophorum diphyllum*, *Soldanella alpina*, *Hepaticas*, together with *Anemone Pulsatilla* and *A. vernalis*. *Androsace pyrenaica* (white flowers on a perfect cushion growth), *A. carnea* (rose coloured), and the richly coloured *Erysimum pachycarpum*, with orange-coloured flowers, were all well represented. Silver Flora medal.

Messrs. Garraway, Bristol, set up a varied group of *Schizanthus*, the plants being extremely well flowered and in excellent condition. The *Schizanthus* is not only excellent as a pot plant, but is of value in the out state. Silver Banksian medal.

Messrs. William Paul and Son, Waltham Cross, staged a fine lot of pot-grown plants of the new Hybrid Tea Rose Warrior, a beautiful and fragrant kind, of great promise as a winter and early spring forcing subject. The plants were well grown and finely flowered.

The Roses from Mr. G. Mount of Canterbury constituted a leading feature of the exhibition. We have nothing but praise for the excellence of the blooms and the manner in which they were disposed. The long-stemmed flowers of such as Mrs. J. Laing, Captain Hayward, and Frau Karl Druschki almost created a sensation by their grand quality. Gold medal.

Three fine plants of *Clerodendron myrmecophilum*, with orange flowers and bronzy red calyces, came from Messrs. Sander, St. Albans. The obovate-acuminate leaves have a glaucous tone on the upper surface.

White-flowered seedling *Hippeastrums* of much merit came from Mrs. W. H. Burns, North Myms Park, Hatfield (gardener, Mr. C. R. Fielder).

The Carnations from Mr. A. F. Dutton were a splendid lot, Christmas Eve (fine scarlet) and Lady Bountiful being exceedingly good. Silver-gilt Flora medal.

Some charming Roses in the out state and in much variety came from Messrs. Frank Cant and Co., Braiswick Gardens, Colchester. We noted a splendid lot of Lady Roberts, and such as Peace, Mildred Grant, the little Perle d'Or, and Prince de Bulgarie among many choice sorts. Silver Banksian medal.

Messrs. Vetch and Sons, Chelsea, contributed *Rhododendron velutianum* in excellent condition, also *R. fosterianum* (pure white), together with *Cinerarias* and *Crocus angustifolia*. *Corydalis Wilsoni* was also included. Silver Banksian medal.

Messrs. Hugh Low and Co., Enfield, contributed a table of Roses, Carnations, and other things. Such Roses as Lady Roberts, Liberty, and Captain Hayward were very good. The Carnations were in much variety and well shown. Silver Banksian medal.

An exhibit of pot-grown *Clematises*, *Prunus triloba*, *Loropetalum chinense*, and *Azaleas* came from Mr. L. R. Russell, Richmond, the group being margined with plants of a variegated *Funkia* in pots. Silver Flora medal.

Some interesting flowering shrubs came from Messrs. Paul and Sons, The Old Nurseries, Cheshunt. We remarked *Deutzia gracilis carminea*, D. g. rosea, Paul's purple Peach, and *Weigela pinnatifida* Fleur de Mai, noted for its earliness and fine colour. The Hybrid Tea Rose Richmond promises to be a fine addition.

Mr. H. B. May, Edmonton, showed groups of flowering plants, as the new *Pelargonium Clorinda*, Rose White Pet, R. Mme. Levassieur, with flowering plants of *Gardenia intermedia* and choice Ferns. Silver Flora medal.

Zonal *Pelargoniums* in the out state came from Messrs. Cannell and Sons, Swanley. The varieties were somewhat numerous, and were displayed in the firm's usual excellent manner. Silver Flora medal.

Some excellent *Rhododendrons* were shown by Messrs. J. Waterer and Sons, Limited, Bagshot, Surrey, of which *Cynthia*, rose, and Pink Pearl were very good. *Sappho*, white, with heavy blotching on the upper petals, is very distinct.

*Anemones* of the *A. fulgens* and *A. Pulsatilla* groups were largely shown by Messrs. Gilbert and Son, B. Burne, Lincs, and furnished a good idea of the value of these early spring flowers.

Flowering greenhouse and other plants in much variety came from Messrs. William Cutbush and Sons, Highgate. *Ericas*, *Azaleas*, climbing *Roses*, *Boragias*, and the new *Rhododendron White Pearl* were all well shown. The new Rambler Rose Mrs. F. W. Flight is very beautiful.

A small, yet interesting, group of alpine came from the Guildford Hardy Plant Nursery, Millmead, Guildford. *Atragene alpina* alba, *Aubretia* Dr. Mules, *Iberis petraea* (quite a rock gem), and *Daphne blagayana* were among many good things.

A collection of alpine and rock plants, with *Females* and *Narcissus* in variety, came from Messrs. J. Feed and Sons, West Norwood.

*Ficus drypandiana* and *Sanseveria Laurenti*, both from the Congo, were exhibits from the State Botanic Gardens, Brussels. Both are distinct and probably of value, but larger examples should be seen to determine this.

Mrs. G. F. Wilson, Weybridge, exhibited a small group of the blue-flowered *Primroses*.

## NEW PLANTS.

The following *Hippeastrums* received an award of merit:

*Agamemnon*.—Scarlet, with white veins and midrib. A fine form.

*Marjory*.—Crimson, with white midrib and veins, and a fine edge of white.

*Pearl Maiden*.—Scarlet, heavily reticulated and veined white. Quite a novelty.

*Field Marshal*.—A very fine scarlet self, from which practically all green has been eliminated.

*Brian Boni*.—Intense velvety crimson. A superb flower. All were shown by Major Holford, Westonbirt, Gloucestershire (gardener, Mr. Chapman).

*Rhododendron White Pearl*.—Virtually a white-flowered form of Pink Pearl, and as such a most valuable plant. It is very beautiful. From Messrs. William Cutbush and Sons, Highgate. Award of merit.

*Thunbergia myosotis*.—A very old and valuable climber from Cull, producing deep orange and yellow flowers in long, drooping racemes. The plant is most effective. From Mr. C. Butler, Warrenwood, Hatfield. Award of merit.

*Cycas Mitchellii*.—This is a very distinct-looking Cycad. From Messrs. Sander, St. Albans. Award of merit.

## NARCISSEUS COMMITTEE.

A charming group of *Narcissus* was staged by Miss F. W. Curry, Lismore, Ireland. It was replete with good things, and we select *Apricot*, the exquisite semi-double Argent, *Albatross*, *Glory of Leiden*, *Lady M. Bunsen*, *Peach* (with deep cinnamon-coloured crown), *Scarletta* (rich crown), the lovely *White Queen*, *Oriflamme*, *Lady of the Snows* (a fine white Ajax), and *King Alfred* as among the best. *Duke of Bedford* (a fine bicolor Ajax) and *Golden Rose* (a rich double incomparabilis) were also fine. Silver-gilt Banksian medal.

Messrs. Barr and Sons, Covent Garden, showed many choice kinds, and here we select *Peter Barr*, *Salmoutta*, *King Alfred*, *Peach*, *White Lady*, *Hamlet* (a rich yellow Ajax), *Mrs. G. H. Barr* (white Ajax), with many promising seedlings as some in a very large and interesting gathering. Silver Banksian medal.

From Holland, M. C. G. Tuberger, Jun., Haarlem, brought a most valuable exhibit of *Tulip* species and varieties. The species were most interesting. Silver-gilt Banksian medal.

A silver Banksian medal was awarded to Sir Joselyn Gore-Both, Bart., Lisadell, Sligo, for a charming lot of *Narcissus* in many of the best varieties, the Ajax and other forms being finely represented.

## NEW NARCISSES.

An award of merit was granted to each of the following *Narcissus*: *Rising Sun* (Mr. Weichman, Wisbech), *Mrs. Robert Sydenham* (Miss Curry, Lismore), and *Brillianty* (Rev. G. H. Engleheart).

## FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Buryard (chairman), Messrs. Joseph Cheal, S. Mortimer, A. Dean, H. Parr, A. R. Allan, W. Fyfe, R. Lye, R. Markham, J. Davis, John Lyne, James Vert, J. Jacques, J. Willard, J. McIndoe, Owen Thomas, A. H. Pearson, and G. Reynolds.

No awards were made by this committee, and the only exhibits were *Rhubarb* Daw's Champion, from Messrs. Founpart and Son, Twickenham; *West Indian Pumpkins*, from Messrs. Philip and Co., 4, Finchchurch Buildings, E.C.; and a few Apples.

## ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, de B. Crawshaw, R. Broome White, W. A. Binney, H. Ballantine, H. A. Tracy, W. H. Young, H. G. Alexander, W. H. White, H. J. Chapman, F. Menteth Ogilvie, F. Sander, R. G. Thwaites, A. A. McBean, Arthur Dye, W. Boxall, H. Little, J. Wilson Potter, and Francis Wellesley.

A charming group of Orchids was exhibited by Major Holford, C.I.E., Tetbury, Gloucestershire (Orchid grower, Mr. H. G. Alexander). At either end small groups of *Odontoglossums* were arranged, some beautiful sorts being represented. A very fine plant of *Cymbidium eburneo-louianum*, carrying 107 flowers on seventeen racemes, filled the centre, and was flanked on one side by a plant of *Ada aurantiaca* carrying fifty racemes of its rich orange-red flowers, and on the other side by *Madevillia Veitchii*. *Odontoglossum luteo-purpureum*, *Lelio-Cattleya high-burienensis*, *Vanda suavis*, and other Orchids were represented by splendid plants. Gold medal.

A beautiful group of Orchids was shown by J. J. Bradshaw, Esq., The Grange, Southgate, N. (gardener, Mr. H. G. Whitelegg). It consisted chiefly of *Lycaste Skinneri* varieties, *Odontoglossum crispum* in numerous forms, and *Cattleyas* in variety. The background was formed of *Cymbidiums*, C. lowianum and C. Lowio-eburneo being represented by fine plants. The beautiful C. x ballianum was also exhibited. *Oncidium oncolor* arranged here and there among the *Lycastes* gave a brilliant bit of colouring. Among the *Cattleyas* were C. Trianae Rejch, C. T. Perfecta, C. T. Ciroe, and other good sorts. Silver-gilt Flora medal.

Sir F. Wigan, Bart., Clare Lawn, East Sheen (Orchid grower, Mr. Young), exhibited a bright group of Orchids in which *Miltonias* and *Odontoglossums* were most noticeable. Among the former were *Miltonia vexillaria chalcidensis*, M. v. excolens, M. v. Empress Victoria Augusta, M. v. alba, and other beautiful forms. *Cymbidium F'Ansonii*, C. lowianum, *Odontoglossum amabile* var. O. wiganianum, O. excolens, and *Dendrobium infundibulum* were others well shown. Silver-gilt Flora medal.

Messrs. Sander and Sons, St. Albans, showed a small group of Orchids, among which was a large plant of a fine variety of *Lelia purpurata*. *Ada aurantiaca*, *Mesaspidium roseum*, *Epidendrum elegantulum*, *Zygopetalum*

*Sanderi*, and several *Odontoglossums* were well shown. Silver Flora medal.

Messrs. J. Cypher and Sons, Cheltenham, showed some good *Miltonias*, *Odontoglossums*, *Cattleyas*, *Oncidiums*, and *Cypripediums* in their group of Orchids. Silver Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed *Lycaste Skinneri* alba, *Cattleya intermedia* alba, C. *Parthenia* Prince of Wales, *Dendrobium atrocarnatum*, D. *nobile* ballianum, D. *Wiganian* xanthochilum, and other rare Orchids. They also showed a large plant of *Dendrobium crassinode* bearing nearly 400 flowers. Silver Banksian medal.

In the group of Orchids from Messrs. Charlesworth and Co., Heaton, Bradford; *Odontoglossum Hallio-crispum*, O. *Othello*, O. *Adrianae* superbum, *Lelio-Cattleya Veronique*, L. C. *Wellsiana*, L. C. *luminosa*, *Cattleya E. id*, and others were represented by good plants. Silver Flora medal.

M. Ch. Vuylsteke, Loochristi, Ghent, exhibited some handsome *Odontoglossums*, forms of O. *wiganianum*, *excolens*, *Rolfes*, and *Wickhamum*. Silver Banksian medal.

H. Whately, Esq., Kentworth, exhibited three beautiful forms of *Odontoglossum crispum*.

A silver Lindley medal and cultural commendation for cultural excellence were awarded to a splendid plant of *Phalaenopsis* (Wallisii X *tuberculosa*) bearing a large number of racemes of flowers. Exhibited by N. C. Cookson, Esq., Wyham-on-Tyne (gardener, Mr. H. J. Chapman).

A form of *Dendrobium* noble with striped sepals and petals, the stripes being more conspicuous on the back of the flower, was shown by L. G. Sutton, Esq., Hillside, Reading (gardener, Mr. Lever).

C. J. Lucas, Esq., Warnham Court, Horsham (gardener, Mr. G. Dancan), showed *Odontoglossum crispum lucasianum*. N. C. Cookson, Esq., showed *Lelio-Cattleya de geestiana* (Oakwood variety). M. le Marquis de Wavrin, Chateau Rouelle, France (gardener, M. de Geest), exhibited *Cattleyas forgetiana*. *Cypripedium Katherine* was shown by Mr. H. A. Tracy, Twickenham.

Sir Trevor Lawrence, Bart., Burford (Orchid grower, Mr. White), exhibited several interesting *Madevillias* and *Cymbidium Behroderi*.

De B. Crawshaw, Esq., Sevenoaks (gardener, Mr. Stables), showed several handsome *Odontoglossums*, O. *crispum* Queen of the Earth, O. C. *Lowi* Crawshaw, and others.

Messrs. William Bull and Sons, Chelsea, showed *Odontoglossum crispum* Princess Eua.

Cultural commendations were awarded to *Dendrobium noble*, shown by Colonel Rogers, D.S.O., River Hill, Sevenoaks; and *Cymbidium eburneo-louianum*, from Major Holford, C.I.E.

## NEW ORCHIDS.

*Lelio-Cattleya The Baron*.—A large and handsome flower, the result of a cross between *Cattleya* x Lord Rothschild and *Lelia digbyana*. Sepals and petals are splashed with soft rose upon a primrose ground; the immense lip has a broad margin of soft rose, while the centre is heavily marked with ruby-brown upon a soft yellow ground. Shown by Messrs. Sander and Sons, St. Albans. First-class certificate.

*Cymbidium F'Ansonii*.—A large flower, the sepals being marked with lines of purplish brown upon a greenish yellow ground; the lip is white, except for a wedge-shaped blotch, yellow lined with brown at the base. From Sir F. Wigan, B. rt., East Sheen. First-class certificate.

*Lelio-Cattleya Hopkinsii*.—A flower of rich and striking colouring (*Lelia tenebrosa* x *Cattleya Pallas*). Sepals and petals are rose, and the large frilled lip is richest purple. Shown by F. Wellesley, Esq., Westfield, Woking (gardener, Mr. W. Horkins). Award of merit.

*Cattleya Trianae* J. Gurney Fowler.—An unusually large flower, and a distinct form of C. *Trianae*. Sepals and petals are pale lilac-rose. The lip is purple, and the throat golden yellow. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

*Madevillia cyno-Estradae*.—A pretty flower, lined and shaded with rose upon a primrose and white ground. Shown by Sir Trevor Lawrence, Bart. Award of merit.

*Lelio-Cattleya illustris magnifica*.—The result of a cross between L. C. *Lavonia* and *Cattleya aurea*. This is a beautiful flower. The sepals and petals are tinged with rose upon a pale apricot-coloured ground, and the lip is rich velvety crimson-purple. Shown by Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

*Cymbidium lowianum* Fir Grange variety.—The sepals and petals of this handsome flower are marked with brown lines upon a green ground colour. The lip is rich ruby-brown, with a narrow pale yellow margin, and the throat is white. From W. A. Binney, Esq., Fir Grange, Weybridge. Award of merit.

*Odontoglossum percutitum Meteor*.—The parentage of this hybrid was *E. lina* x *ardentissimum*. Sepals and petals are rose-lilac with white margin, and both are blotched with purplish red, more especially the petals. From M. Ch. Vuylsteke, Loochristi, Ghent. Award of merit.

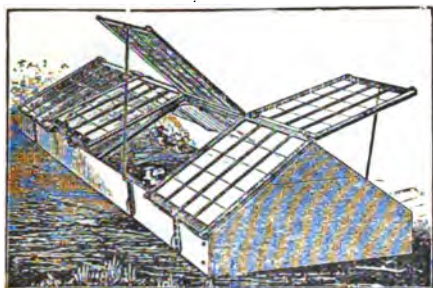
The diplomas awarded were as follows: For species—First, W. A. Binney, Esq., Fir Grange, Weybridge, for *Cymbidium lowianum* second, Jeremiah C. Mann, Esq., Gatton Park, for *Cymbidium hookerianum pumetissimum*. For hybrids—First, Sir Frederick Wigan, Bart., for *Cymbidium F'Ansonii*; second, Sir Trevor Lawrence, Bart., for *Cymbidium eburneo-louianum*.

WANTED.—A copy of the fifth edition of Dr. Hogg's "Fruit Manual" (published in 1884) is wanted for the Royal Horticultural Society's Students' Library at Wisley. Will any reader who has a copy to spare kindly communicate with the Secretary, Royal Horticultural Society, Vincent Square, Westminster, S.W.?



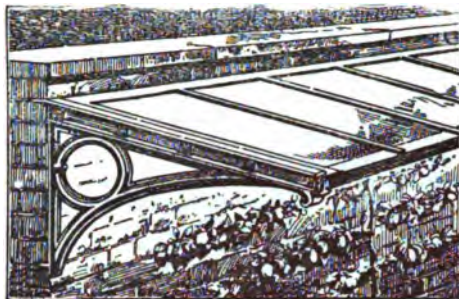
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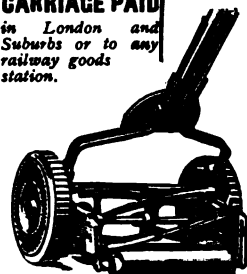
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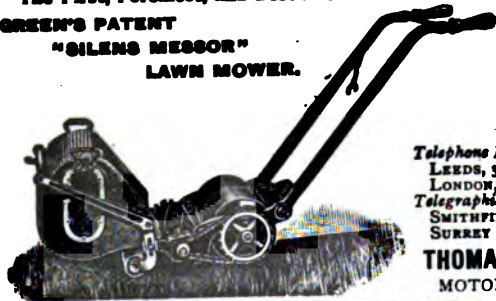
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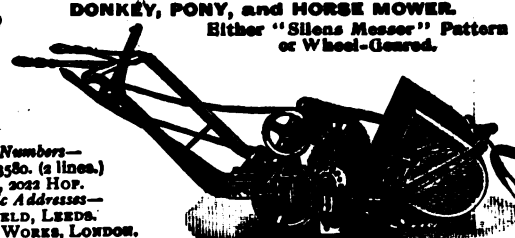
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## OBITUARY.

LIONEL SMITH BEALE, M.B., F.R.S.

**W**E have heard with great regret of the death of Dr. Lionel Beale, an eminent physician and scientist, an old and valued contributor to *THE GARDEN*, and a keen gardener. Dr.

Beale had a unique and most interesting garden among the Pines at Weybridge, where he grew a great variety of plants under conditions such as might dishearten the most enthusiastic gardener. When first he went to Caenswood Cottage, some fifteen or more years ago, most, if not quite all, the garden was then a Pine wood. Clearing spaces here and there, without, however, cutting down the trees. Dr. Beale made winding paths with banks on either side, which led one sometimes to a deep dell where Ferns and other shade-loving plants grew luxuriantly, or, again, to some secluded grassy spot carpeted with flowers in early spring, and sheltering, perhaps, a treasured Palm or Bamboo. This garden in the wood was most delightful in spring-time. Snowdrops, Primroses, Scillas, Daffodils, and Snowflakes in an endless succession peeped from the mossy banks and shady dells, carpeting the ground with colour, while later the whole ground became alive with the green shoots of Ferns and many an uncommon plant of interest. Not a bit of the garden was wasted; it was full of plants, and Dr. Beale knew the history of each and watched eagerly for its coming every year. Dr. Beale was keenly interested in growing Bamboos and some of the Palms out of doors, and probably the finest specimen in the country of *Chamserops exoclas* is in Caenswood Cottage garden. Dr. Beale bought this plant in the sale room (as he did others which he established out of doors), and had the satisfaction of seeing it develop into a splendid plant. "S. M." who knew him well, writes:

"If you wished to see him you found him in the evenings in his garden building up a bank for plants that loved the sun, or delving down some 30 feet to make a home for tender Ferns, Palms, and plants that required shade and shelter. To walk round his garden with him was a delight. He would pick up an armful of Bracken Fern as he passed a cold or sunburnt plant, a little covering was doled out according to its needs, not dumped down anyhow, but tucked round gently, as he would have treated a fever-stricken patient. His plants were to him one great family, whose wants were supplied daily according to their needs. It was his attention to little things that so impressed the writer. Walking on the common at Weybridge one day, stooping, he slipped something into his pocket. In answer to enquiry as to what he had found: 'Only a toad; so useful in the garden.' Dr. Lionel Beale was the kindest and best of friends. It is good to have known him."

Dr. Beale was seventy-eight years of age. He was educated at King's College, London, and at the age of twenty-five was Professor of Physiology there. He held various chairs at King's College afterwards, and resigned in 1896, after forty-three years of uninterrupted professional work. Dr. Beale was the author of numerous works on scientific subjects.

## MR. THOMAS BARTON.

We regret to record the death of Mr. Thomas Barton, head gardener and land steward at Dunsany Castle, County Meath, the seat of Lord Dunsany. Mr. Barton, who had reached the age of seventy years, was an Englishman who came to Ireland over forty-five years ago, and for the long period of forty years occupied the responsible position of head gardener and land steward to the Dunsany family, by whom, and by all with whom he came in contact, he was held in the highest esteem and regard.

**A beautiful race of Cinerarias.** The houses in Messrs. James and Son's nurseries at Farnham Royal are a blaze of colour. It is the time of the Cineraria, when the beautiful strain which is the result of the firm's own raising is in full bloom. We have written of

'James' Cinerarias" on many occasions, but it is always with pleasurable feelings we do so as their season again comes round. The various colours are kept distinct, and a picture of dense colouring is presented, in one house a mass of blue, then purest white, and so through the striking shades which smother the strong leafage. It is, of course, a matter of individual appreciation whether the purple or the rose or the edged colours are the most meritorious, but we can point to these forms as the most perfect representations of their race. Many of the colours are quite self, and the large house of the white variety looks as if a snowdrift had blown in and settled on the stages. The white is very pure, and set off by a deep violet-shaded centre. In another house the stellata group is gathered together, and these show a wonderful variety of colours in the small star-shaped flowers which crowd on the slender shoots. The whites are again pure in tone, and a sky blue shade is as pretty as anything we have seen in the way of Cinerarias. A visit to Messrs. James' nursery just now will well repay the lover of Cinerarias, which have never been finer than this year.

**A Daffodil Annual.**—I note on page 103 of *THE GARDEN* for February 17, 1906, a suggestion that a Daffodil annual be issued. I am sure that such a publication would be of great interest to lovers of this flower, and hope that I may in some way be kept informed if this project should ever be realised. I should certainly wish to secure a copy. — A. J. PIERRES, *Botanist in Charge, United States Department of Agriculture, Washington, D. C.*

## GARDENING APPOINTMENTS.

MR. A. L. STATHAM, gardener to Sir E. G. Musgrave, Bart., and C. H. Shaw, Esq., at Eden Hall, Cumberland, for the past seven years, has been appointed gardener to Collin McIver, Esq., at Blisdon Hall, Longhope, Glou.

MR. ERNEST PASTON, who has been for the last six years in the gardens at Whitbourne Hall, Worcester, has been appointed gardener to Mr. Currie of Beachley, near Chepstow, and entered on his duties on the 19th inst.

MR. A. BAILEY, head gardener to Lady Bateman Scott, Great Barr Hall, near Birmingham, has been selected by the Parks Committee of the Handsworth District Council to succeed the late Mr. G. W. Mair as superintendent of the Victoria Park, Handsworth. There were upwards of 400 applications for the appointment.

MR. J. B. POW, for the past two years general foreman in the gardens at Dunsany Castle, County Meath, the seat of the Right Hon. Lord Dunsany, has been appointed head gardener in succession to the late Mr. Thomas Barton.

MR. J. YOUNG, for the past three years one of the foremen at Syon House Gardens, Brentford, as head gardener to S. Croft, Esq., St. Margaret'sbury, Ware, Herts.

\* \* The Yearly Subscription to *THE GARDEN* is: Inland 6s. 6d.; Foreign, 8s. 6d.

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# THE GARDEN.

No. 1795.—VOL. LXIX.

APRIL 14, 1906.

## PLANTING THE HOLLY.

MAY IS THE BEST MONTH.

**A**LTHOUGH the Holly is more associated with winter and the glad-some season of Christmas than the month of Daffodils and Tulips, this is the time to direct attention to its importance as a hardy evergreen. We described its beauty in the winter landscape recently, but again refer to a subject we never tire of bringing before our readers. These notes have a special significance, as they have been written to accompany a coloured plate of the largest-leaved and most striking of all Hollies, *Ilex Wilsoni*, which is the greatest advance among Hollies since the introduction of *Ilex Shepherdii*. It differs from this Holly in possessing larger and glossier leaves, and the berries are not only large, but beautiful in their warm red colouring. *I. Wilsoni* should be made note of for planting as a single specimen on the lawn, and we hope those who delight in this fascinating evergreen will add it to their collections. It is a natural hybrid, having occurred in the nurseries of Messrs. Fisher, Son, and Sibray, Limited, of Handsworth, Yorkshire; it has received the first-class certificate of the Royal Horticultural Society.

May is preferable to September for planting Hollies, and after planting mulch and give one good watering with gentle syringings on warm evenings. With regard to Gold and Silver Hollies, beginning with the former, of which *Aurea marginata* is the type, we would say Golden Queen or *Aurea Regina* undoubtedly is the finest and most effective variety, either as a single specimen on the lawn or in large groups on the fringe of the shrubbery. As a golden variegated tree it is unrivalled for beautiful colouring in winter, when its brightness seems to bring summer into the dull months of the year. Another desirable golden variety is *Compacta aurea*, or *watereriana*, which forms a charming small specimen of warm yellow shades. The weeping variety of Golden Queen is very beautiful on the lawn, and a Holly of recent introduction called *Mme. Briot* has foliage almost as bright as Golden Queen; the growth is vigorous and the berries are of a brilliant red. The Silver Hollies must be grouped together. *Ilex argentea* and several beautiful varieties of creamy colouring fall

into this section. *Argentea marginata*, the old Silver Holly, is of very quick growth, hardy, and has an abundance of berries; *Argentea pendula* is the weeping form, and makes a cheery specimen on the lawn. Its brightness is unsurpassed by any other variegated tree of similar growth; but the most striking of all is Handsworth Silver. It is the Holly to plant on the fringe of the lawn, and if we were restricted to one Silver-leaved Holly our choice would be Handsworth Silver, the queen of its race. The familiar Silver Queen, known in books as *Aquifolium argentea Regina*, is also a very fine broad-leaved silver variety, but does not "berry" with the same freedom as Handsworth Silver. Another desirable Silver Holly is *Grandis*, but it is little known, notwithstanding that no collection is complete without it.

Although we must acknowledge that the nomenclature of the Hollies is in a confused state generally, one collection may be trusted implicitly, and that belongs to the firm of Messrs. Fisher, Son, and Sibray. We hope that this beautiful native shrub and its varieties will quickly take their place in the home garden, and adorn it with their cheerful, glistening green foliage and sparkling crimson berries. We would seek out not the Holly of the hedgerow, but the beautiful varieties from it, and the natural hybrids, which are a joy to see in the Handsworth nursery, in which they have had their birth. There are strength of growth, beauty of leaf colouring, and profusion of berries in these hybrids that are not seen in the commoner forms of the native tree, and the planter of park and home woodland should not forget these in any future planting schemes where Hollies are desired. We would sweep away much of the tree and shrub growth in crowded shrubberies, and substitute bold groups of our native Box, Yew, and Holly. Laurel and Privet dominate where there should be seen the cheerful glint of the Holly leaf or the warm gold and silver of the best variegated varieties, which are a great attraction during winter, when the deciduous trees and shrubs are leafless. But Hollies must be kept by themselves; that is, not spoiled by neighbouring things of perhaps quicker and more rampant growth. The best twelve Hollies are *Shepherdii*, *Platyphylla*, *Wilsoni*, Golden Queen, Silver Queen,

Handsworth New Silver, *Compacta aurea*, *Camellifolia*, *Hendersonii*, *Handsworthensis*, *Madeirensis*, and *Argentea marginata*. All or any one of these will give satisfaction.

## A NATIONAL HARDY PLANT SOCIETY.

THERE can be little doubt that a strong, well-organised society devoted entirely to the interests of hardy plants would find ample scope for the exercise of its energy. Such a society, moreover, should, and doubtless would when fairly afoot, accomplish much that would make for the advancement of the increasingly popular herbaceous, alpine, and kindred plants that are included under the general heading of "hardy perennials." Nevertheless, for some reason difficult to explain, the efforts that have thus far been made with a view to organising such a society have met with scanty sympathy or support. Some months ago a correspondent appealed through our columns for expressions of opinion and views held by our readers regarding the matter, but the response was not what might have been anticipated. Must this apparent apathy towards the proposed organisation be accepted as evidence that such a society is deemed unnecessary or undesirable? We trust not.

To our mind there is ample room and, indeed, much need for, a National Hardy Plant Society. True, the number of societies that claim, more or less, the sympathy and support of devotees to horticulture is large, and it must be admitted that to add unduly to their number is to be guarded against, but we believe that there is a work to be done in the interests of hardy plants that can only be fully accomplished by a society specially organised for that purpose; a society sufficiently strong and influential to merit the title of "The National Hardy Plant Society."

We have not the slightest desire to disparage the work of local or specialist societies. We are well acquainted with the value of such work, but some things there are that cannot be done except by a society that is throughout the land recognised as the governing body. The affiliation of all local societies and specialist societies with the "National" would be highly desirable and mutually beneficial. Evidence of the good work accomplished by national societies in other phases of horticulture is abundant. Take, for instance, the National Rose Society and the National Chrysanthemum Society. Who shall say by how much the Rose and the Chrysanthemum owe their present exalted positions in the realm of horticulture to the good offices of their respective societies? It is a reasonable



prophecy to assert that what these societies have accomplished for their charges a National Hardy Plant Society would do for hardy plants. We are not blind to the obstacles in the way. The very magnitude of the work that awaits the society is calculated to delay its birth, and we are inclined to the opinion expressed by Mr. S. Arnott in his recent letter, that the chief reason the society is not already in existence is that no one has been forthcoming who could and would undertake the onerous duties of secretaryship. To those who have the formation of the society at heart we would say: "Seek diligently for a good man as secretary." We refuse to believe that among the great army of enthusiastic hardy plantmen in our land, there can no one be found who is able, and whose devotion to hardy plants will make him willing to take up the secretarial reins of a National Hardy Plant Society. Once well established, the society would speedily take rank among the foremost and most important societies connected with horticulture.

## THE EDITOR'S TABLE.

### TREE PEONY FLOWERS.

Mr. F. C. Puddle, The Gardens, Scampston Hall, Rillington, Yorks, sends flowers of a white and also of a scarlet Tree Peony. They were plants, of course, grown in pots, and, as our correspondent says, are a welcome addition to greenhouse plants at this season.

### MANY INTERESTING SPRING FLOWERS.

Sir Charles Wolsley sends from Wolsley, Stafford, the following pretty things now in flower on his rock and wall garden:

*Adonis vernalis*.—This is not much of a bloom now, as it is just going off, but it has been very fine on the top of the rock garden. It has been in flower since January 27.

*Anemone Pulsatilla* (the Pasque-flower).—Just out at bottom of rockwork.

*Iris reticulata*.—The bulbs have flowered excellently on a bed at the top of the wall.

*Soldanella montana*.—This has flowered splendidly this year on rockwork. It has been in bloom since February 15, with a bit of glass over to protect the blooms from rough weather. [The *Soldanella* is an exquisite flower.—Ed.]

*Saxifraga apiculata* and *S. Salomoni*.—Both these are flowering well on rockwork facing full south.

*Primula denticulata alba*.—This is only just beginning to bloom, but promises well, at the bottom of rockwork, and also at bottom of wall.

*Primula purpurea*.—This is very like *Primula denticulata*, but it flowers much earlier and lasts longer in bloom. It has been in bloom since February 4, and generally goes on till the end of April. Moreover, it is planted on the highest and driest part of the rock garden facing full south.

*Erica carnea*.—This has been flowering grandly on rocky bed. [Very beautiful.—Ed.]

*Erica mediterranea hybrida*.—This is pretty, but the bright colour of *E. carnea* eclipses it.

*Narcissus cyclamineus*.—On rockwork among other plants this gives a bright effect early in the year.

*Saxifraga oppositifolia*.—This does splendidly on a bit of rockwork facing full south. I had some trouble to get it to bloom well at first, but the last three years it has been one mass of bloom.

### NARCISSI FROM A TOWN GARDEN.

"W." sends blooms of the handsome trumpet Daffodil *Mme. Plomp*, incomparable Beauty, *i. Stella*, *Sir Watkin*, and others which are now beautiful in a small garden.

## PRIZES FOR GARDENERS. APRIL.

### STRAWBERRIES OUT OF DOORS IN SUMMER AND AUTUMN.

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA.

are offered for the best essays upon "How to Provide a Crop of Strawberries Out of Doors during Summer and Autumn without the Aid of Glass."

The essay (limited to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than April 30. Both amateur and professional gardeners may compete, but it is to be hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS, and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

April 17.—Royal Horticultural Society's Meeting (Auricula and Primula Show).

April 25.—Midland Daffodil Show at Birmingham Botanic Gardens (two days); Darlington Spring Flower Show.

May 1.—Royal Horticultural Society's Meeting.

May 5.—Special Show of Seedling Auriculas, Birmingham Botanic Gardens.



THE LATE DR. LIONEL SMITH BEALE.

**The late Dr. Beale.**—The death of Dr. Beale, eminent scientist and physician and enthusiastic gardener, which took place on the 28th ult., was recorded in THE GARDEN last week. Every corner of his beautiful garden at Caenwood, Weybridge, was arranged with

thought, and the great success with which he grew exotic plants in the open gave evidence of the skill and patience he brought to bear. In THE GARDEN for January 14, 1905, we published an illustration of a magnificent hardy Palm in Dr. Beale's garden.

**Prizes for Nature study.**—The Chester Society of Natural Science, Literature, and Art, founded by Charles Kingsley in 1871, is offering Kingsley memorial prizes and certificates for Nature study to boys and girls residing in Cheshire and North Wales. The prizes are offered, for example, for the best description, accompanied by drawings and dried specimens, of the entire plants and dissected flowers of the Buttercup and Daisy; for the best account of the plants growing upon the city walls; for a collection of seeds and fruits illustrating dispersal in Nature, &c. All the work must be done by the competitors themselves, who must be under seventeen years of age, and should reach the hon. secretaries, G. P. Miln and W. F. J. Shephard, Grosvenor Museum, Chester, on or before September 1.

**Forthcoming shows.**—The Chester Paxton Society's annual exhibition of fruits and Chrysanthemums will be held in the Town Hall, Chester, on Wednesday and Thursday, November 14 and 15. Mr. G. P. Miln, Grosvenor Museum, is the hon. secretary. The Southend-on-Sea and District Horticultural Society will hold their summer show on July 10 and 11, and the Chrysanthemum show on November 6 and 7. Messrs. Foster and Watts, Ilford House, London Road, are the hon. secretaries. The Ancient Society of York Florists offers prizes exceeding £400 in value in the schedule for 1908. The shows are on April 11, May 23, July 18, September 13 and 14 (Dahlia show), and November 14, 15, and 16 (Chrysanthemum show). The secretary is Mr. G. F. W. Oman, 38, Petergate, York. The twentieth exhibition of the Bolton Horticultural and Chrysanthemum Society will be held on November 16 and 17. Mr. George Corbett, Heaton Grange Gardens, Bolton, is the secretary.

**The tree-butcher.**—It is generally appropriate on the approach of spring to utter a note of warning concerning the trimming of trees. More or less pruning or other care is necessary every year, either to promote health and vigour, remove dead wood, or to induce desirable changes in form or growth; but such work should never be done except by expert tree men. As has been often said in these columns, every kind of tree must be treated in accordance with the needs of the particular kind; the Elms have their peculiarities, the Oaks theirs, and so on; and only men with a thorough knowledge of these conditions should ever be permitted to prune a tree. In all communities, where it is possible, such work should be done under the direction of a city forester or a competent nurseryman. The latter might be employed by the local city improvement association, and it would pay.—*Park and Cemetery, Chicago.*

**The Wild Fauna and Flora of the Royal Gardens, Kew.**—The publication of this remarkably interesting book has long been delayed by unavoidable circumstances. It has now been issued as an additional series of the Kew Bulletin. In a preface the late director, Sir W. T. Thiselton-Dyer, remarks that "the area of the gardens as they at present exist is something under half a square mile. It appears to me that it is of considerable interest to show what a vast number of forms of life of the most varied kind may exist together on what is relatively a microscopic speck of the earth's surface. The publication of this work may encourage working naturalists to correct errors and to accomplish, as perhaps has never been done yet, a complete census of every form of life occurring spontaneously in a small but well-defined area."

**Children's flower show.**—The sixth annual show of spring flowers grown by the scholars attending the Nelson Street School, Norwich, was held recently. The head-master in a short address said that they found the competition an excellent supplement to the school work. The judge, Mr. T. B. Field, in congratulating the scholars on the rapid progress they had made, said that the present was a record year.

**Four Oaks and Sutton Coldfield School of Gardening.**—The object of this school for ladies, girls, and children is to give such theoretical and practical instruction that gardening may be pursued with intelligence as a private interest, to lead on to the various branches of professional gardening as a suitable occupation for women. The garden is situated on the Lichfield Road, Mere Green, five minutes' walk from Four Oaks Station.

**"Early-flowering Chrysanthemums."**—In view of the increasing interest in early-flowering Chrysanthemums, the National Chrysanthemum Society held a conference in October last, at which numerous papers bearing on different branches of this subject were read. These are now published in book form, Mr. C. H. Curtis, who acted as hon. secretary of the conference committee, having undertaken the duties of editor. The book consists of thirty pages, and may be said to contain practically all that can be said about the popular early-flowering Chrysanthemum. It should be read by all interested. It may be had for 7d. post free by non-members from Mr. G. Dean, 8, Avonwick Road, Heston, Hounslow.

**Vegetables at the Shrewsbury show.**—The Shropshire Horticultural Society seem determined that their great annual exhibition at Shrewsbury, to be held in August next, shall remain the premier vegetable display of the kingdom. Through liberal trade offers and from its own funds the society presents in the vegetable department alone some seventy classes, and in round figures the huge sum of £130 in prizes, besides other valuable articles. What wonder if with such attractions all vegetable growers of pretensions aspire to win at Shrewsbury! No such display of vegetables is to be seen anywhere else in Great Britain. Even cottagers have a chance of winning some 160 prizes dispersed over thirty classes. In the trade classes, which invariably bring the champion exhibitors of vegetables into competition, the great seed firms again offer valuable prizes. While there can be little doubt that old and experienced vegetable growers will again enter, it is evident that all cannot compete in all the trade classes; hence it is hoped that fresh growers may be induced to exhibit. Could someone another year be induced to create a class for a collection of six kinds, open only to those who had never previously competed at Shrewsbury, fresh competitors might then be found.—D.

## ROSES IN AN IRISH GARDEN.

The accompanying illustration shows part of a garden about two miles out of Londonderry. It is situated on a slope facing rather more east than south, and was made about nine years ago. At the time the garden was made it was decided to make the Rose beds on the lower part of the slope, for two reasons—in order that they might be sheltered as much as possible from the prevailing strong winds which blow from the west and north-west, and that they might add a pretty foreground to a beautiful view from the front of the house. Shrubs are also planted on each side to act as a protection from the wind, though not near enough to prevent a free circulation of air. The trees, about 200 in number, are all dwarfs,

and were bought from a grower in the North of Ireland, it being thought best to get trees which were acclimatised, owing to the climate here being so different from that of the South of England. The rainfall is much heavier, averaging about 44 inches, though last year was comparatively dry, the fall only amounting to 37.81 inches. The heat in the summer is also much less than in the South of England, hence the season is later, and although the trees are pruned about the same time as in the South of England, the best show of blooms does not come on till the second week in July. The beds were, of course, properly prepared for Roses from the beginning, and to this and the fact of its being virgin soil are to be attributed the magnificent blooms which some of the pink varieties produce.

In the two beds shown in the illustration there are about 200 trees, and as they run along the foot of the lawn just in front of the house, about 30 yards away, you may imagine what a lovely outlook there is in the summer months. Some varieties suffer from mildew very badly in the autumn, those worst affected being Margaret Dickson and Her Majesty. The climate is too



ROSES IN A GARDEN IN IRELAND.

(The plant in the foreground on the left is *White Baroness*.)

wet for most of the Teas to do any good out of doors, as the buds get sodden and rot off, but *L'Idéal*, *Mme. Hoste*, and *Mme. Falcot* do pretty well. Some of the Hybrid Teas do better than anything else; nothing could equal the magnificent blooms and strength of growth of *Caroline Testout*, *Viscountess Folkestone*, and *Grace Darling*. *La France* and *Mme. Abel Chatenay* do very well, too, when the season is not very wet. Of the Hybrid Perpetual varieties, *Mrs. R. G. Sharman Crawford*, *Princesse Camille de Rohan*, *Suzanne Marie Rodocanachi*, *Captain Hayward*, and *Frau Karl Druschki* are the best, though the darker colours do not usually flower so well and freely as the pale pink varieties. The buds of a good many of the dark red varieties throw up the green centre, and the petals crinkle up without opening, or else the buds become very shiny, as if they were covered with a coating of gum, and do not open at all. After being like this for some time, they rot at the root of the bud and fall off. *Abel Carrière* is the worst example of this, and as there was only one good bloom off two trees in five years they were thrown

out. The garden proved so successful in July, 1903, that it had the honour of supplying the Roses to decorate the retiring-room of Her Majesty the Queen when the King and Queen were in Londonderry. JOSEPH H. WELCH.

*Dunruadh, Londonderry.*

## THE FRUIT GARDEN.

### RENOVATING OLD VINES.

IT is sometimes impossible for a gardener to pull up old Vines and replant his vinerie, that from neglect or other causes fail to produce satisfactory crops, with young canes. That something must be done to improve matters is evident. From considerable experience with this work of rejuvenation I will as briefly as possible explain the method. Many years ago, on taking charge of a garden in the South of Scotland, I found two vinerie in what can only be described as a deplorable condition. The Vines were planted inside, but the border in which they were growing was only 18 inches wide. As the hot-water pipes were sunk considerably below the level of this bed, it was impossible to do much to improve matters there. I then turned my attention to the outside border. On making a careful examination of this I found that there was not a live root to be found nearer the surface than 12 inches or so. On enquiry I found that my predecessor had annually given the border a coating of stable manure, which had never been removed. No wonder the poor roots refused to come near the surface. I next procured a plentiful supply of good turfy loam which had been stacked for some time. I also procured a quantity of old mortar, bone-meal, and some of Thomson's Vine Manure.

I started at one end of the border and took out a trench about 6 feet wide, using a digging fork for this purpose. I carefully removed the soil till I came to live roots. All rotten and diseased roots I carefully removed, but those at all healthy I followed as far out as possible. Having got hold of as many of these live roots as I could find, I put down a good layer of fresh soil, arranged the roots carefully on this, and, with a sharp knife, made a cut in each of them, about every foot or so of their length. I then placed a handful of sharp sand round each cut part, and proceeded to fill in the fresh soil. As the work of filling in proceeded I gave good dressings of the old mortar, bone-meal, and Thomson's manure. This is a much quicker method than mixing the ingredients beforehand, and if carefully done the mixing is quite as satisfactory. Finally, about 3 inches of the best of the old soil was spread on the top; I gave no farmyard manure at the time.

This work was performed in February (but could be done later), and the Vines were started gently about the same time. Even the first season there was a slight improvement, while the following year no one would have believed the fruit to have been cut from these old apparently worn-out Vines. Four years after the work was finished I took the first prize for Black Hamburg Grapes at the Edinburgh autumn show.

My annual treatment after renewing the border may be of interest. About the end of October I covered the border with about 9 inches of stable litter; this was removed in March if the weather was suitable, and the border pointed over with a fork, at the same time giving a dressing of Thomson's manure. Another dressing of this manure was given after the Grapes were thinned, and that this was the proper treatment the crops amply proved. The Vines were forty years old or more. I renewed the Vine rods by taking up fresh canes from as near the base as they could be had. The varieties were Black Hamburg, Muscat of Alexandria, and Mrs. Pince's Black Muscat. I have at various times seen other houses of Vines treated in the same

manner with equal success. The case I have explained, however, was the most unpromising to set about, and the result proves that even the very worst cases are not hopeless.

Preston, *Linthgham*.

C. BLAIR.

### HARDY FRUIT-GROWING.

I HAVE often read in *THE GARDEN* hints on hardy fruit-growing, and I thought I should like to give your readers some results of Apple-growing here. We grow over eighty sorts as standards, espaliers, pyramids, and trained on walls. Our crop last season (not a full one) was 106 bushels; we began gathering on July 30, and finished on October 24. The soil is a fairly good loam, clay subsoil, and a northern aspect. The Apple store is frost-proof and fitted with open batten shelves, on which sheets of paper are laid to prevent the fruit bruising and to keep it clean. We can maintain an equable temperature of from 35° to 45°. We are scarcely ever without Apples, either for cooking or for dessert. There are now thirty named sorts in the store, most of the trees of which have been planted within the last nine years. I am sending you a few fruits as a sample. Lane's Prince Albert is a vigorous grower either as a standard or a pyramid, fruits early, and produces large, clean fruit which will keep firm till May. Lord Derby is a large culinary fruit, cooks well, and is a certain cropper. Lemon Pippin has proved one of the heaviest-bearing varieties grown, and is best as a standard; the fruit keeps till May. Lord Burghley is a good

acquisition to our late dessert fruits, and is of excellent flavour. King Harry is a medium-sized late yellow dessert Apple, very crisp and sweet; not a heavy cropper. Cocker's Pippin is a sweet, conical-shaped fruit, a good bearer, but somewhat slow in growth. Beauty of Kent is a large striped fruit suitable for cooking or dessert, a vigorous grower, and keeps till April. Bramley's Seedling is one of the largest and best culinary Apples grown, a strong grower, and good cropper. Mère de Ménage is a very free grower, but shy in bearing at first; it produces very fine, high-coloured fruit, which keeps till April. Baummann's Red Reinette is a very heavy cropper and a brilliant red in colour, briar flavour, and keeps till May. Warner's King is a good standard variety, producing large, mellow culinary fruits, which are much in demand. Golden Noble is a very handsome fruit, firm, and keeps well. Beauty of Stoke is a good grower and cropper, producing fine conical fruits either on standards or espaliers. Tower of Glamis is one of the best old varieties; it crops and keeps well. Calville Boisbunel is a good late dessert fruit, highly coloured, and in use till April. Adam's Pearmain is a very useful late dessert fruit of good flavour, but the tree is not very vigorous.

*Littlecote, Hungerford.*

J. REYNOLDS.

### AN APPLE TO RIVAL RIBSTON PIPPIN.

MR. BAYLOR HARTLAND sends from Ard Cain, Cork, fruits from a large tree growing in his

nursery, with the following note: "The tree has been planted nearly twenty years, and we had to prop it up this year, its spreading branches carrying a crop of fruit equal in size to those sent. I have sent fruits to the best experts in England, and not two send me its proper name. From experience of years I guess what it is by John Scott's description. Will you kindly give me your opinion? It keeps without shrivelling until May or June, and kindly notice how few pips there are within, how solid it is, and what a rich flavour of the Ribston. It never cankers like Cox's Orange, the Sturmer Pippin, and the Ribston. I should place it, from a planting here of 180 sorts, as the best we have. I suppose the tree this year carried 1,000 fruits. Our Daffodils are all above ground, *Cervantesi*, similar to that I send, leading the van and in full bud, likewise the early Poet's variety, viz., *præcox grandiflora*. The Lenten Roses are very beautiful also."

[The fruit sent was undoubtedly the variety Belle Bonne. It is a good sort, the flesh firm, juicy, well flavoured, and the tree crops freely.—ED.]

## THE ROSE GARDEN.

### ROSE CLIMBING FRAU KARL DRUSCHKI.

THE Rose Frau Karl Druschki, one of the best white Roses, is so well known that when a climbing form was exhibited at a recent meeting of the Royal Horticultural Society it occasioned a good deal of interest. The blooms are very similar to those of the ordinary form, except that they are hardly so large. The buds, too, are tinged with pronounced pink, which fades to white as they open. In the bud state, however, the pink tint is very decided. It is yet too early to say whether Climbing Frau Karl Druschki will prove of value as a garden Rose, but the plant shown by Messrs. Lawrenson and Son, Egglecliffe, Yarm-on-Tees, grown in a pot, carried a fair number of good blooms, and gave promise of being a valuable acquisition. If out of doors the climbing form grows with proportionate vigour to the dwarf one, it will certainly be a strong grower, and if one may judge of its flowering from the plant shown, there will be nothing to complain of in this respect. An award of merit was granted to this Rose.

### MILDEW ON ROSES.

I AM sure that all Rose growers feel very grateful to *THE GARDEN* for recently devoting so much valuable space to articles on that troublesome disease, mildew. It has certainly been interesting and instructive to read the experiences of various growers living in different parts of the country as to which varieties are, and which are not, subject to mildew with them, but what I require to know—and I think I may safely add, all Rose growers wish to know—is why does mildew appear at all? As prevention is always better than cure, the question which naturally suggests itself is, what can we do to prevent its appearance? I think everyone must admit that this is the most troublesome and destructive enemy with which we have to deal in growing Roses, that our knowledge of its cause is very limited, and the treatment at present is not satisfactory. I maintain that no authority has yet been able to explain why this fungoid growth attacks our Rose trees. True, some say that it is due to dryness at the roots of the plants, others to excessive moisture in the atmosphere, and many other equally vague opinions are given. I had the pleasure of hearing Mr. Cooling's paper on "Autumn Roses" last



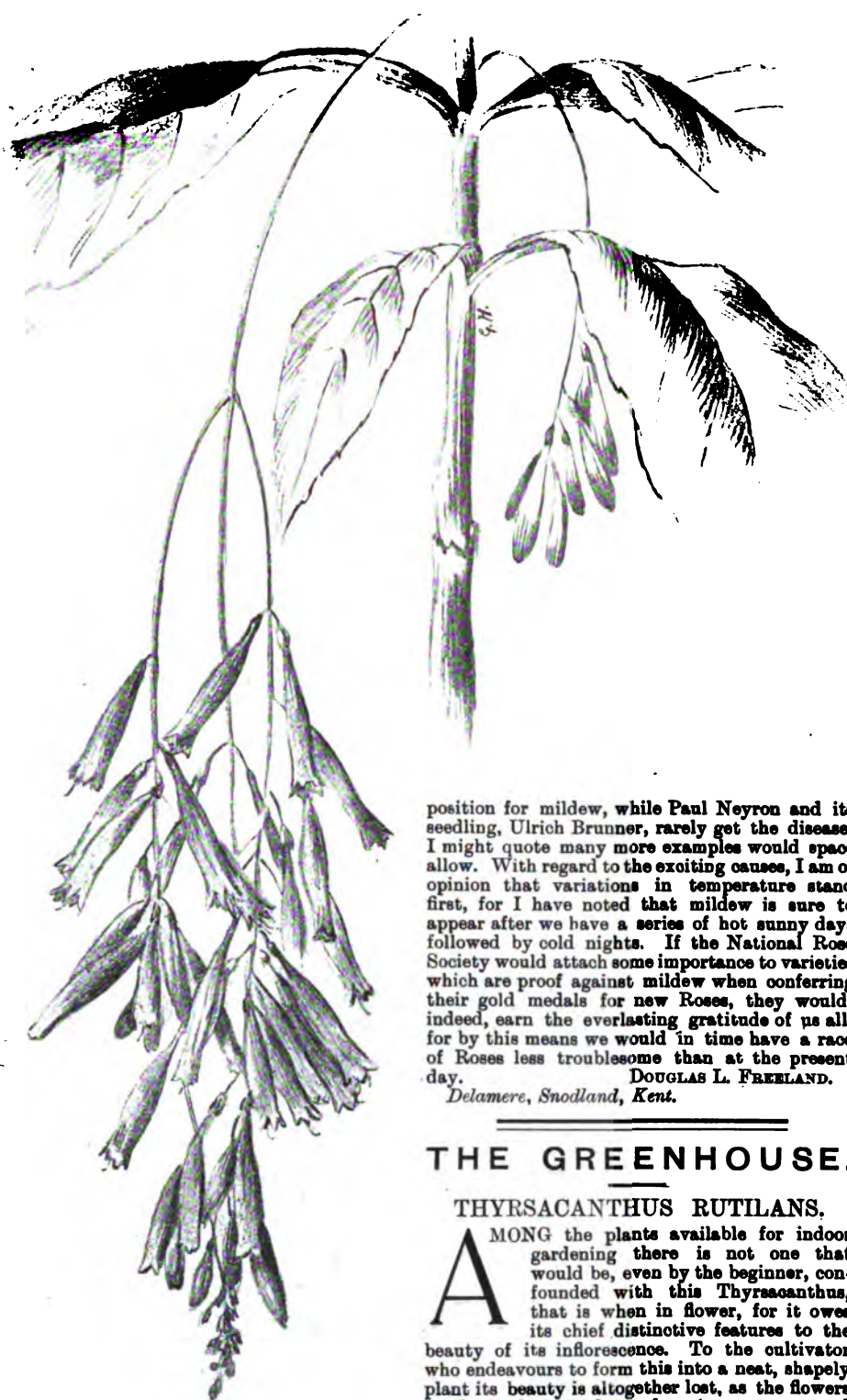
SPRAY OF THE NEW CLIMBING ROSE FRAU KARL DRUSCHKI.

(One-half natural size. Shown by Messrs. W. Lawrenson and Sons, Egglecliffe, before the Royal Horticultural Society on the 30th ult., and given an award of merit.)



September at the Royal Horticultural Hall. In it he gave an exhaustive list of the varieties which in his experience are never attacked by mildew, but in answer to questions after the lecture, he was quite unable to offer any suggestions why mildew attacked some varieties and not others, nor was he able to say how it is to be prevented. Unfortunately, we are unable to exclude from our collections all those sorts which we know from experience are liable to be attacked. For example, Frau Karl Druschki, admittedly our finest white Rose, and one of the best for garden decoration and exhibition, is very subject to mildew. Again, Margaret Dickson, a grand garden Rose by reason of its vigour of growth and freedom of blooming, is with me one of the worst offenders. We should have to discard Caroline Testout from among the Hybrid Teas, and the Hon. Edith Gifford from our Teas, both excellent Roses in every other way. In my garden I have a bed at one end of which are some plants of Her Majesty, at the other end some Margaret Dickson, and between these a few Ulrich Brunner. Her Majesty, it goes without saying, is always attacked very badly, Margaret Dickson also, but not severely, while Ulrich Brunner I have never known to suffer until last autumn, and then only slightly. These were all treated alike as far as feeding was concerned, and they were growing in the same soil. These facts to my mind dismiss the question of feeding and of soil as factors in the causation of mildew. The late Mr. Foster-Melliar, in his excellent work "The Book of the Rose," says mildew is most likely to appear in shut-in gardens where there is not a free circulation of air, because the spores of the fungus are thus allowed to settle on the leaves of the trees, there being not enough air to blow them away. Last summer was remarkable here for the prevalence of continued high winds; in fact, we had gales all through the Rose season, and so severe were they that I lost several standards, the heads being blown out, although they were firmly secured to stout stakes, and I had many of my best blooms ruined.

With me, 1905 was the worst year I can remember for mildew, and from what I can learn this is the opinion of most growers. If mildew is spread by the floating about in the air and the eventual alighting of these spores on the leaves, why, I ask, is it that the under-surface of the leaf is nearly always first attacked, and not the upper, as one would naturally expect? Again, why was it so bad in a year peculiar for the prevalence of high winds? It is also said that if plants are kept in a healthy condition mildew is not likely to appear. I take it for a Rose tree to be in a healthy condition it must have good cultivation and generous treatment. Her Majesty requires high cultivation to be any good, but this is notoriously the worst for getting mildew I know, while Ulrich Brunner can do well and give excellent results without the same amount of attention, yet rarely suffers. It is not due to constitution, for Teas, as a class, are tender and are almost mildew-proof, the Hon. Edith Gifford, one of the most hardy and vigorous, being a notable exception. Among the Hybrid Perpetuals we hardly ever see Paul Neyron with mildew, while Mme. Gabriel Luizet, equally hardy and vigorous in growth, is seldom seen without it. There is a generally-accepted theory that mildew is an acutely infectious and contagious disease. In my opinion, this is a much-exaggerated idea. As an instance of this, I may state that I have a row of Grüss an Teplitz, within 3 feet of which are growing another row of Mme. Pernet-Ducher. The latter always gets mildew, but I have never known the former to catch it. If mildew is as contagious as is popularly believed, one would naturally expect that the Pernet-Duchers would give it to the Grüss an Teplitz, especially when their branches actually touch and intermingle as they do in the case of my plants. I am, therefore, led to think that the contagious nature of mildew is not so real as is generally



A BEAUTIFUL GREENHOUSE FLOWER.  
(THYRSACANTHUS RUTILANS.)

(Shown by Mr. Beckett, gardener to Lord Aldenham, Elstree, Herts, before the Royal Horticultural Society recently. Slightly reduced.)

supposed. To my mind the whole trouble lies in some obscure hereditary tendency which requires an exciting cause for its development. This hereditary taint is proved by the susceptibility of Roses belonging to certain families being especially liable to be attacked. For example, François Michelon and its offspring, Mrs. John Laing, always show a strong predis-

position for mildew, while Paul Neyron and its seedling, Ulrich Brunner, rarely get the disease. I might quote many more examples would space allow. With regard to the exciting causes, I am of opinion that variations in temperature stand first, for I have noted that mildew is sure to appear after we have a series of hot sunny days followed by cold nights. If the National Rose Society would attach some importance to varieties which are proof against mildew when conferring their gold medals for new Roses, they would, indeed, earn the everlasting gratitude of us all, for by this means we would in time have a race of Roses less troublesome than at the present day.

DOUGLAS L. FREELAND.

Delamere, Snodland, Kent.

## THE GREENHOUSE.

### THYRSACANTHUS RUTILANS.

AMONG the plants available for indoor gardening there is not one that would be, even by the beginner, confounded with this Thyracanthus, that is when in flower, for it owes its chief distinctive features to the beauty of its inflorescence. To the cultivator who endeavours to form this into a neat, shapely plant its beauty is altogether lost, as the flowers are borne in very long, drooping racemes, and are consequently seen to the best advantage on tall stems. The continued stopping necessary in order to obtain bushy plants causes weakened shoots, with a corresponding poverty of blossoms. The latter part of these remarks apply not only to the Thyracanthus, but many other subjects in the order Acanthaceae, to which it belongs, such as Aphelandras, Jacobinias, Justicias, and such things. The object aimed at should be good strong growth, the main shoot being allowed to grow without pinching. Even if the result is a plant 4 feet to 5 feet in height, it will be found that this is by no means too tall for the long racemes pushed out from the upper



part. It is often treated as a stove plant, but succeeds best in an intermediate temperature. If kept too warm or in too dry an atmosphere red spider is apt to attack the thin-textured leaves, and quickly causes them to drop. This *Thyracanthus* strikes readily from cuttings of the young growing shoots in early spring, and from that time the plants should be kept growing on without check. By no means a novelty, for it was introduced from Colombia in 1851, *Thyracanthus rutilans* is one of the fine old plants which are coming more prominently forward after many years of comparative neglect.

H. P.

### AMARYLLIS.

#### TREATMENT AFTER FLOWERING.

SOME of the more common causes of failure with these plants are growing on the bulbs without allowing any rest, giving too long a resting period, or inattention after flowering. All plants require a period of rest at some time of the year, and the Amaryllis is no exception. At the same time, the total withholding of water for a lengthened period is a serious blunder, while keeping the plants all the year in a warm, moist temperature is equally wrong. It is usual, while the plants are in flower, to remove them to fairly cool quarters, so as to retain the beauty of the blooms as long as possible. As soon, therefore, as the flowers fade, return to the warm house and afford the plants every chance of making strong, healthy growth. It is a good plan at this period to remove all young bulbs and to give a top-dressing of rich soil. Any that may require bigger pots should have a moderate shift only, as the Amaryllis dislikes a large pot. I grow most of mine in 5-inch pots, and use nothing larger than a 6-inch one. After the plants have exhausted the fresh soil, give weak applications of liquid manure made from sheep or cow manure at least twice a week. Vary this by occasional doses of Ichthemio Guano in a liquid state; a heaped tablespoonful to the gallon of water.

By the end of June most of the plants will have completed their growth. Then is the time to remove them to a sunny greenhouse. Place

so that the bulbs may receive all the sun possible, and water carefully. When the leaves begin to turn yellow, afford only enough water to keep them from flagging. On no account allow them to get dust-dry for any length of time, or the result will be the loss of all the roots. In my opinion, the most important point in the whole matter is never to allow the roots to die. By wintering in not too high a temperature very little water is necessary, but that little must be given.

C. BLAIR.

Preston, Linlithgow.

### PRIMULA FORTUNEI.

THIS interesting plant, shown in the accompanying illustration, is to all appearances a hybrid between *P. denticulata* and *P. farinosa*. It has been in cultivation for nearly fifty years, as it is figured by Moore in the *Floral Magazine*, 1860, t. 7, from a plant which flowered in the nursery of Messrs. G. Henderson and Son, Wellington Road, St. John's Wood.

The origin of the plant is not there given, and nothing has been added to its history since that time. It is still exceedingly rare in gardens, the plant illustrated having been presented to the Royal Gardens, Kew, recently by Colonel Beddome, Sispara, West Hill, Putney, who is probably the only one who possesses specimens of it. Of course, it might possibly be in other gardens, but at any rate it has not been recorded. Its scarcity may be due to its half-hardy nature, as it requires to be grown in a cold frame during the winter,

while in summer it should be plunged or planted out in a cool, shady place where it can obtain plenty of moisture. It thrives well in sandy loam and leaf soil, but produces seed sparingly, which fact seems to point to its hybrid origin. As it is perennial the crowns may be divided after flowering, thus offering a method of increase other than by seeds. *P. Fortunei* has coarsely dentate leaves similar to those of *P. erosa*, and not mealy, with stems a few inches high bearing loose heads of flowers, which remind one of *P. farinosa*.

The flowers are about half-an-inch in diameter and bluish lilac in colour, with a primrose yellow eye. It comes into flower early in February and lasts for a considerable time, thus being useful for the unheated house.

W. L.



THE RARE PRIMULA FORTUNEI AT KEW.



SAXIFRAGA APICULATA ON THE KEW ROCK GARDEN.

## FLOWER GARDEN.

### IXIAS AND SPARAXIS.

THESE both require the same kind of cultivation, as they differ but little from each other. They are natives of South Africa, and need more sunshine than we can order for them. They do not succeed as hardy bulbs in any part of Great Britain, but it is easy to ensure a fine bloom of them as of Hyacinths or Tulips. It follows, therefore, that they are better adapted for pot culture than in the open ground. The surest way to enjoy them is to get a new stock of bulbs, or more properly speaking, corms, every year, as by such means a brilliant display at small cost of money and labour may be ensured. For a good display of *Ixias* and *Sparaxis* potting should be done in the month of September,

using a mixture of good leaf-mould one part, fibrous peat three parts, and rough silver sand two parts, or where a good sandy peat containing a reasonable amount of fibre can be procured this will suffice without any admixture whatever. And for all general purposes 5-inch pots, three to five roots in a pot, will be the best rule as to size and numbers; but large pans, if somewhat shallow, are quite as suitable. In any case, it is folly to spread the roots over a large space, and five in a 5-inch pot will be none too many for a good head of bloom.

Crock the pots with care, fill nearly full with soil, and then put in the bulbs. Cover them just enough to put them out of sight. The soil should be a little moist in the first instance, in which case there will be no necessity for giving water; but if the soil is dry, give them one dose of water, then place them in a cold frame, draw the light over, and leave them to manage their own affairs for a little while. If kept safe from frost, with no more moisture than just suffices to encourage root action, they will in due time put up their green spears and show that they will endeavour to do their duty. It is now of great importance not to give them too much water, but at the same time they must not be allowed to get quite dry. When there are signs of growth remove the plants to a warm greenhouse and increase the supplies of water as the growth advances, taking care always to avoid excess, and at the same time keeping them near the glass, and giving them as much air as is usually allowed in winter to plants that are known to be nearly hardy.

As the season advances the flowers will begin to show; they will then require more liberal supplies of water, more air, and a little staking and tying to keep them in order. The beauty of the blooms will more than compensate for all the trouble taken. When the bloom is past, put the plants out of doors in a sunny situation on a bed of coal ashes, taking care not to neglect them. The leaves will soon die down after the flowers are past, and then there must be an end of watering. If it be a very hot summer, the *Ixias* may be left alone to become quite dry and to roast into perfect ripeness, which is the natural course of events in the sandy soil of their native fields. But in a cool summer it will be a good practice to take all the pots to a greenhouse and lay them on their sides on any shelf that can be spared, full in the sun. Being thus fully ripened they will flower again, and it will only be necessary to shake them out about the middle of September and repot them in fresh pots and fresh soil to ensure another bloom.

*Ixias* may be also well grown without the use of pots or the help of a greenhouse if only a frame with lights is at hand. Make up a bed of sandy peat under a south or west wall. The bed must be well drained, and it must have a sunny exposure. Plant the roots in rows across, 3 inches apart in the rows, and the rows 6 inches asunder. This

should be done in September or early in October. Give the least amount of water possible, but moisture the roots must have. Make use of the lights judiciously, giving air as often and as long as possible, and take care not to push the growth. By this means a good bloom may be secured, and the cultivator can flower the same roots time after time, and with each year's growth obtain a supply of offsets. To do this the plants must be encouraged to flower freely and to complete their leaf-growth, after which they must be allowed to become quite dry. The lights should be again put on to help the ripening process. *Ashwellthorpe, Norwich.* T. B. FIELD.

#### THE NEAPOLITAN AND COMTE DE BRAZZA VIOLETS.

I AM herewith sending you a photograph which I have taken of these Violets growing in a cold frame. Some of the blooms I have picked measured fully 1½ inches across. The



THE NEAPOLITAN AND DOUBLE WHITE COMTE DE BRAZZA VIOLETS IN FRAME.

ones on the right-hand side of the photograph are Comte de Brazza, and on the left Neapolitan. We have been able to pick more or less some good blooms all the winter. I usually take my young runners as soon as possible in May, and plant them in good soil in a position that is partly shaded from the hot midday sun. Attention as to cleaning, hoeing, and watering are, in my opinion, important details to obtain good plants for planting in a frame, which I usually do by the middle of October, then keep the frame close until the plants begin to take hold of the new soil. I then gradually admit air, and after a few days the light may be kept off altogether on all favourable occasions. F. E. STOKES.

*Cokethorpe Park, Witney, Oxon.*

#### SAXIFRAGA APICULATA.

THERE are several yellow early-flowering Saxifrages in cultivation, but the present plant occupies a prominent position among them on

account of its earliness and the freedom with which it flowers. So profusely are the flowers borne that the foliage is completely hidden beneath them. It has been long grown in gardens under various names, which include *S. Malyi*, *S. luteo-purpurea*, *S. Frederici-Angusti*, and *S. Alberti*, but its origin has never been definitely ascertained. It is, however, probably a hybrid between *S. saxatilis* and *S. burseriana*, which cross would be likely to produce such a plant. For the cold alpine house it is a most valuable plant for growing in pans. A mixture of loam and sand, with plenty of grit mixed with it, suits its requirements admirably. During the summer months it should be plunged in ashes outside up to the rim of the pot, supplying it with plenty of water. When the flowers begin to show it may be moved inside, and will come into flower in February. Plants should be split up and repotted after the second or third year in pans, as the crowns, if left longer, become crowded together and weak, and although they will still flower freely, the individuals are small and weedy. On young plants the stems are sturdier and hold up the larger flowers better.

Outside on the rockery the plants soon form large tufts, a sunny position on a ledge or sloping bank suiting them best. It will also grow well in partial shade, but under these conditions it does not flower so freely. There are two forms of this plant in cultivation, both with primrose-coloured flowers, but one form flowers some three weeks before the other opens. W. IRVING.

#### A CHARMING ALPINE FLOWER.

(*MORISIA HYPOGÆA*.)

THIS charming little alpine plant, which is now flowering, is a native of Corsica and Sardinia, and produces tiny bright yellow flowers about three-quarters of an inch in diameter, scarcely reaching more than 2 inches in height; its evergreen leafy rosettes are also very beautiful. To grow this alpine successfully select a half-shady position on the rockery, and plant in a deep sandy loam with good drainage. It is well worth growing in pots so that the flowers may be given the protection of a cold frame. It may be increased by cuttings and division in early summer. R. M. F.

## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**P**ROPGATION OF IVIES BY CUTTINGS.—A. Portion of a branch of fingered or digitate Ivy (*Hedera Helix digitata*): *a*, stem that may have aerial (support-clasping) roots; *b*, aerial roots on firm wood and parts not generally detachable as cuttings, either on account of disfiguring parent plant or clumsiness of part for insertion and transference; *c*, young shoots, moderately firm, as in late summer or autumn, and suitable for cuttings; *d*, points of detaching so as not to leave a bare stub on

to trail, always transferring to permanent quarters before entangled. D. Portion of a branch of Donerail's Ivy (*Hedera Helix donerailensis*), showing mode of taking portion of moderately firm young shoot as a cutting: *n*, point of detaching; *o*, point of removing leaves; *p*, depth of inserting in soil; *q*, aerial roots that may or may not be present. E. Cuttings of variegated Algerian Ivy (*Hedera Helix algeriensis variegata*) inserted under shelter of a wall in late summer with eastern, western, or northern aspect: *r*, soil (see A *g*) placed in a few inches deeper than length of cutting deprived of leaves; *s*, trench taken out; *t*, cuttings placed in 6 inches distance apart, rows 9 inches asunder, trench filled in firmly after inserting cuttings; *u*, cuttings properly inserted. F. Cutting of Lesser Marbled Ivy (*Hedera Helix marmorata minor*) properly prepared and inserted in 2½-inch pots: *v*, drainage; *w*, soil; *x*, space for holding water in watering. G. Cutting of Lesser Marbled Ivy after rooting transferred from 2½-inch into 4-inch pots: *y*, drainage; *z*, soil; *a*, ball of soil and roots; *b*, space for holding water in watering; *c*, top secured to stake if required for low wall or trellis, otherwise allow to spread horizontally. Cuttings inserted in pots, preferably singly, and placed in heat, kept shaded until rooted, make good plants in much less time than when placed in a frame or in the open air; this method is advised for the choicer varieties and for getting up stock quickly and in quantity for general decorative purposes.

**Pruning old Roses.**—Old climbing Roses on pillars are apt to become a tangled mass of growth, and to flower on the outside and on the top only if they are not attended to properly. It is well to take them down every two or three years at least, cut out some of the older stems which are not needed, and then tie them up again carefully so that each shoot is trained separate from its neighbour. No advantage is gained by having so many shoots in pillar Roses; one would get more flowers by having fewer and better growths.

**The Umbrella Plant.**—Slightly fanciful perhaps, but not more so than many popular names, is that of Umbrella Plant as applied to *Cyperus alternifolius*. The shape of its flowering umbels suggests the name, as they stand erect on long stems and radiate in much the same manner as the wires of an umbrella. This is an ideal amateur's plant. It grows like a weed in a moist, shady greenhouse, but is not daunted by sun and aridity in the atmosphere, nor by a few weeks' sojourn in a dwelling-house. Seeds, division of the roots, and utilising the flowering tops as cuttings are means of increase, and all or either can be carried out at this season. Division gives the quickest results, and may be practised to almost any extent. This *Cyperus* is a very thirsty subject, and much time would be wasted in watering in summer were it placed in a well-drained pot. Instead of crocks cover the drainage hole with a little well-decayed farmyard manure, and use a rich compost for filling the pot. Always give water in abundance.

**A Miniature Foliage Geranium.**—So far as my experience goes, and I have known the plant for at least twenty years, the pretty little Geranium to which I would call attention never blooms.

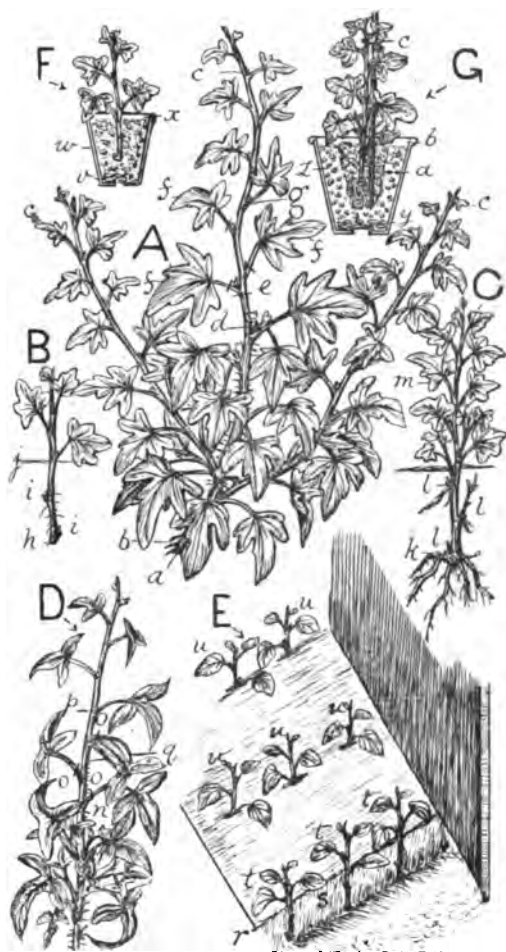
It, however, produces such a neat, compact tuft of silver-edged foliage, some 4 inches to 6 inches high, that it is invaluable in every garden where summer bedding out is practised. No pinching, no pegging, no regulating whatever is needed; it simply requires to be planted and left alone. Its real name nobody seems to know, but it rejoices under quite a number of aliases—a sure sign of garden popularity. Of these, the best known, and, I think, the most correct is Dandy, but it is known as Little Pet in many gardens. Its propagation is a delight, quite large branches, with several leads, striking readily in a warm greenhouse at this season. I have put in cuttings as late as the middle of April, and they have grown into first-rate plants for alternating with blue seedling Lobelias by the last week in May.

**Disbudding Peach Trees.**—The growths on the Peach trees on walls outdoors will soon make rapid progress, and disbudding—that is, removing some of the growths—will be necessary. If all the little growths were allowed to remain, the tree would become quite a thicket of shoots before the season was over. Some must be removed, and it is important to remove only those which are not necessary to the well-being of the tree. Only a few must be taken off at a time, otherwise the tree would suffer a check. On no account must the one at the top or the one at the bottom of the shoot be removed. It is essential that both should be left. First remove a few of the growths towards the middle of the shoot (rub them off with the finger and thumb), say, every other one, except where you think another shoot might be trained in with advantage; then you may leave a growth that will eventually form a new shoot to fill the empty space. Take the strongest branches first, and remove a few growths from the middle of each of them the first day. Then in a few days' time do the same with half the remaining shoots, and finish the first disbudding on a third day. In ten days or a fortnight's time the final disbudding may be commenced, and it, too, must be spread over several days, allowing three or four days to elapse between each. When disbudding is finished there should remain only the leading growth at the end of the shoot, one or two at the base according to the space to be filled, and, if it is necessary, another one wherever it may be wanted. As a rule, however, one at the top and one at the base are enough.

## TOWN GARDENING.

**Hoeing** is most important work in the garden at this time of year. Not only does it aerate and improve the soil, but it also keeps down weeds. If the latter are destroyed now, before they are large enough to flower, a good deal of annoyance and work later on will be saved. If, however, the weeds are allowed to grow and flower and produce a crop of seeds before they are cut down, there will soon be a host of them to deal with. Nothing helps the growth of plants at this season more than a loose surface, which is obtained by careful hoeing. A surface-soil that is lumpy and hard hinders rather than helps forward the growth of plants.

**Bulbs to Plant Now.**—The bulbs of *Gladiolus* should now be planted; the old scarlet *brenehleyensis* makes as fine a show as any, and is, perhaps, the most suitable for the town garden. A pleasing result can be obtained by planting a few bulbs of *Galtonia candicans* (the Cape Hyacinth) between the *Gladiolus*. Both will flower together, and the red of the *Gladiolus* and



PROPAGATION OF IVIES BY CUTTINGS.

parent plant; *e*, cut to be made transversely below a joint; *f*, leaves to be cut off to base of petiole, not damaging "eye" or bud in axil; *g*, depth of inserting cutting, properly prepared, in soil (two parts turfy loam, one part leaf-mould, half a part each old mortar rubbish and sharp sand), position if in summer on north border, later (October) may be in open sheltered place. B. Cutting properly made and inserted: *h*, point of cutting transversely below a joint; *i*, stubs of leaves removed; *j*, surface of soil. C. Rooted cutting starting into growth: *k*, roots pushed from base of stem where callus formed; *l*, growths pushed from buds in underground stem, and usually with roots; *m*, top that should be secured with a stake if required for trellis or wall covering, or if for ground-clothing or flat work allowed

the white bells of the *Galtonia* make a pretty picture. It is not too late to plant Lilies now, especially the late-flowering ones, such as *tigrinum* and *speciosum* or their varieties. They will not bloom quite so well this year as those which were planted last autumn, but they will give a very fair return and flower rather later than the established bulbs. The roots of the scarlet *Lobelia* (*L. cardinalis*), which have been wintered in boxes and just covered with soil, may now be planted out.

**Seed-sowing.**—The soil needs careful preparation for seed-sowing. It is now time to sow hardy annuals, and half-hardy ones may be sown outdoors at the end of the month by those who have not been able to sow them under glass earlier. The soil should be made as fine as possible, for seeds of some plants are very small and may fail to germinate in badly-prepared soil. First dig it up 2 inches or 3 inches deep with a small hand-fork, then break down all rough particles with the back of the rake, and finally rake over so as to make the surface smooth, and remove all rough pieces. It is best to sow the smaller seeds on the surface, covering them very lightly with a sprinkling of sand or sifted soil. For large seeds a shallow cavity may be drawn out, filling up again after the seeds are sown. Sowing seeds too deeply is almost as bad as sowing them too thickly; if they are buried deep they often fail to germinate.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**SWEET PEAS.**—These were sown in pots in February, and having been thinned and gradually hardened, may now be planted out. The soil should be well trenched, and plenty of good stable manure worked in. Rows or hedges of Sweet Peas are very attractive; they can also be used to mask an unsightly place during summer, but the most satisfactory way of growing them is in separate colours, planted in clumps. They form pillars of flower. Five pots of plants that have been thinned down to three plants in a pot, make a good clump. This number will allow for the removal of any rogues when the plants begin to flower. Make the ground fairly firm about them. A few small sticks should be placed round the plants to lead them up to the taller bushy sticks, which should be 8 feet or 9 feet high, and should be put in at once, keeping them well away from the plants, and put a string or wire round the whole to keep them together, otherwise they are liable to displacement by strong winds. Birds and slugs do not attack Sweet Peas that are planted from pots to the extent they do those sown in the open ground, as they start growing away freely at once, but as safeguard, a dusting of soot should be applied.

**SCHIZOSTYLIS COCCINEA.**—This charming little bulbous plant resembles a miniature *Gladiolus* of a bright scarlet colour. As it flowers in late autumn or early winter, it is particularly valuable, and, being of easy culture, it should be grown in quantity. It flourishes best in a deep moist loam. It frequently suffers from drought, and if planted on light, sandy soil, must be kept well supplied with water during the growing season. The plants may be divided now and planted in rows 9 inches apart, and 3 inches apart in the rows. By October these will have grown into nice sturdy plants, just beginning to push up the flower-spikes. They should then be carefully taken up and transplanted closely in a row at the foot of a south wall or fence where some temporary protection can be given; as although the plant is hardy, the flowers are liable to be damaged by severe frost.

**PITS AND FRAMES.**—Plants in these will now require careful attention. Those established in pots and boxes may have the lights taken off on fine sunny days, to keep them as sturdy as possible until they are ready to be transferred to the flower garden. Propagate from cuttings all kinds of bedding plants of which there are still not sufficient. The best means of propagating soft bedding plants in large numbers is by making up alight hot-beds now, dibbling the cuttings thickly in rich sandy soil upon the hot-bed.

G. D. DAVISON.

Westwick Gardens, Norwich.

### FRUIT GARDEN.

**FRUIT TREES** planted in the autumn should be looked over, as the soil may have been loosened during the winter by severe frosts. Make the soil about the roots thoroughly firm by treading it, and if the mulching afforded them at the planting season has almost disappeared, a further application of half-rotten stable manure will be beneficial.

**FRUIT BORDERS**, more especially those on gravelly or well-drained soils, or where the walls have broad copings, should be well watered if necessary, first lightly forking over the space between the wall and the cropped portion of the border. Give the water in the morning, so that it may sink some depth into the soil before nightfall, as sharp frosts at night may still be expected.

**APRICOTS** have set their fruits in all but the latest districts, and as soon as they are well set they should be thinned if necessary, removing first the smallest and those that are growing between the branches and the wall or are otherwise badly placed. It is the safer practice to look over the trees two or three times, taking away a few fruits at each time, rather than to complete the thinning at one operation. More fruits than are necessary for a full crop should be left until they have passed through the stoning process. Strong-growing trees should be allowed to carry a heavy crop if possible, as it helps to restrict the excessive vigour of the tree. A healthy Apricot tree should carry a crop of from six to eight fruits to the square foot. As the Apricot produces fruit on the wood of the previous year's growth, as well as on the spurs, disbudding and pinching should be effected accordingly, and as soon as the shoots are of sufficient length to be easily handled they should be thinned out. This should be done gradually, going over the trees several times before the shoots are finally thinned; those which spring from the front and back of the branches should be removed first, rubbing them off entirely as soon as they have made a start to grow, afterwards removing others that are not required for extension or for replacing the shoots now carrying the fruit and for forming fruit-spurs. The Apricot maggot will be found in the folds of the young leaves, and can be destroyed by pinching the leaves between the finger and thumb. Its presence can be easily detected by the appearance of the leaves and young shoots which are bound together with a glutinous web. On the first appearance of aphids the trees should be sprayed with a solution of quassia several days in succession. Slugs should be searched for, before they leave their winter quarters, behind the large trunks of old wall trees close to the ground. Later in the season they can be caught at night by means of a light when they are feeding.

THOMAS WILSON.

Glamis Castle Gardens, Glamis, N.B.

### ORCHIDS.

**CALANTHES.**—The deciduous *Calanthes*, such as *C. vestita* varieties and the beautiful hybrids *C. Veitchii*, *C. Bryan*, *C. Sibyl*, and *C. William Murray*, are fast developing their new growth, and no time should be lost in attending to their potting requirements. The pseudo-bulbs should be potted singly in 5-inch or 6-inch pots, according

to the size, in a mixture of two-thirds fibrous loam and one-third leaf-soil, with a sprinkling of thoroughly dried cow manure beaten to a powder added. The whole should be well mixed together with a liberal sprinkling of coarse silver sand and finely-broken crock. A few large crocks should be placed in the bottom of the pot, and a little rough loam placed over them. Then fill to within 1 inch of the rim with the compost, and place the plant in position, so that the young growth is as near the centre of the pot as possible, and pot firmly, leaving the surface just below the rim and the base of the young growth a little below the surface. *Calanthes*, with few exceptions, require the conditions of an ordinary plant stove. A good position for them immediately after repotting is a shelf near the roof-glass where they may obtain the maximum amount of light. They do not require water at the root for the first two weeks; syringing between the pots is all that is necessary, and until the growths are 6 inches or 7 inches high they should only be watered when the compost has become quite dry. During the summer, when the plants are growing freely, they require a copious supply of water, and will be benefited by an occasional watering with weak liquid cow manure. Much depends upon the present treatment as to whether *Calanthes* will be a success or failure. If the plants are over-watered before the roots are working freely in the soil, then the leaves become spotted and the plants will fail. They should not be shaded for a week or so, but as the growth advances gradually give shade.

**CLEOGYNE ORISTATA.**—In many gardens where Orchids are not generally cultivated *C. oristata* is seen in a thriving condition. Since the flowering season they should have been given a short rest. They may now receive attention with regard to top-dressing or repotting. It is advisable to repot a few each season, as it usually takes two years to establish them sufficiently to get a good show of flowers. Perforated shallow pans are the best receptacles in which to grow them. These should be filled to within 2 inches or 3 inches of the rim with crock drainage, over which a layer of moss should be placed. The compost may consist of two parts fibrous peat to one part fibrous loam and sphagnum moss, inter-mixed with coarse sand and broken crocks. They should be potted in a mounded position, with the young growths towards the centre, and be pressed moderately firm. It is sometimes necessary to use pieces of copper wire, bent as hooks, to hold them in the required position. They should be given a good watering after repotting, and then allowed to become dry before they are watered again. Place them in a shady part of the intermediate house, and keep the atmosphere in a fairly moist condition by syringing between them.

W. H. PAGE.

Chardwar, Bourton-on-the-Water, Gloucester.

### KITCHEN GARDEN.

**WALKS AND EDGINGS.**—Now that the greater part of the digging, and consequently carting and wheeling into the kitchen garden, is done, repair the roads and walks and put in order the edgings. If the walks are in a bad condition, break them up with a pick, make the surface even (a level surface is preferred in some places, but I think, on the whole, a slightly rounded surface is better), and add coarse or fine gravel as may be necessary. If the centre of the walk is soft, cracked flints or granite should be added before the gravel; well roll in with a heavy roller, giving the walk a good watering at the time of rolling. A walk remade thus will require regular rollings after rain until the surface is firmly set. See that the drains are all right before finishing the walk. As an edging nothing to my mind is better than stout tiles or blue corner bricks (half round at one end) set firmly in a bed of concrete; if either should get broken or displaced by a cart-wheel the defect can be easily repaired. Such an edging also provides scant refuge for slugs.



**Box Edging.**—Where this is employed for an edging it is necessary to relay it every three or four years, and now is a good time to do this work. Lift the Box, divide it, and shorten the roots with a sharp bill-hook, dress the ground with leaf-mould or manure from the garden rubbish heap, make the ground firm, and plant to a line in perfectly upright trenches, firming the plants with the foot. When planting is done, fix the line at a height of 4 inches or 5 inches and clip the tops to make all even. Where replanting is not necessary, clip the top and sides with sharp shears. The red or white Thrift (*Armeria vulgaris* and *A. v. alba*) are much used as a edging, also Thyme, &c. The chief objection to a green edging is, I think, that it is such a harbour for slugs—the edgings are apt to get very weedy, for one dare not use weed-killer or salt very close for fear of destroying the edging. A cheap and tidy edging can be made out of wood sawn into lengths of 12 feet, and 5 inches wide by 1½ inches in thickness (Klm or Fir is suitable), and fairly stout Oak piles or posts. Fix the piles firmly into the ground every 6 feet, and nail the wood to them. If the wood is "pickled," or dressed with a preservative, it will last for eight or ten years, and is very strong.

**Sowings of Seed.**—If not already done, herbs should be sown. Continue with successional sowings of Sweet Basil in pots. Sow also Borage in boxes placed in heat if wanted quickly. Onions for pickling should now be sown in drills 10 inches apart, sowing the seeds considerably thicker than for the main crop; the variety Silver Skinned is suitable. Continue to sow Parsley thinly. If sown in beds, arrange the drills so that every second drill can be lifted for transplanting. Parsley sown in boxes should be planted out. An early sowing of Beet may now be made, the Turnip-rooted varieties being best for early work. If possible, sow where a protection can be afforded from late frosts, as Beet seedlings are very tender. In 1902 I saw an entire sowing ruined by frost on May 14.

J. JAKUES.

Bryanston Gardens, Blandford.

## NURSERY GARDENS.

WEBB AND SONS, WORDSLEY,  
STOURBRIDGE.

**T**HE well-known firm of Messrs. Webb and Sons, Wordsley, near Stourbridge, was founded years ago by Messrs. Webb. By the year 1870 the business had grown into a large concern, but how greatly it has developed since that date is forcibly demonstrated by the difference in the size of the buildings as they were then and as they now appear. A tour of the warehouses, stores, and order-rooms is sufficient to impress upon the visitor the magnitude of the business conducted by Messrs. Webb and Sons. Store after store is viewed, each filled to overflowing with sacks full of seed. In one 3,000 sacks of Swede, in another a nearly equal number of Mangel seed, all carefully cleaned and neatly labelled, stand ready for the demand they will shortly be called upon to meet. While inspecting the vast store of Mangel seed, one is informed that no less than 43 tons of the variety known as Smithfield were last year sold by the firm. Still other stores are devoted to Hops, a branch of the trade which has recently been much developed. Further on one comes to rooms devoted to Grass and Clover seeds, while the cleaning machinery which is employed in connexion with these seeds is of the latest type, sifting and sorting until even the microscope fails to detect anything but the pure article in that which remains. And so through endless stores and cleaning-rooms the visitor passes to the garden seed department, which at this season is the scene of great activity. When it is stated that during the busiest part of the season a

thousand or more orders for garden seeds are often dealt with daily, it will be seen how vast a business is carried on in this department. In connexion with the garden seed section a considerable extent of ground in close proximity to the buildings is covered with ranges of glass-houses.

Of the extensive trial grounds and farms at Kinver, a few miles from Stourbridge, and of the experiments that are so systematically conducted there by Messrs. E. Webb and Sons, accounts have from time to time been published in these columns. It is from the farms at Kinver that many of the new breeds of Corn and many varieties of garden plants and flowers have emanated. The farms owned and occupied by Messrs. Webb extend to some 2,000 acres. The seed farms at Kinver are merely the nurseries in which the parent stocks are raised, the seed from them being distributed among the numerous agriculturists who grow for the firm under contract.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

### FLOWER GARDEN.

**PLANTS FOR CEMENT TANK (*Nepenthes*).**—Plants likely to suit your purpose are *Aponogon distachyon*, sometimes called the Cape Pondweed, a tuberous-rooted plant with oval, floating leaves, and forked spikes of white flowers scented like the Hawthorn. It will stand out of doors in favoured spots, but appreciates protection in winter. *Limnorchis Humboldtii*.—The oval-shaped leaves of this are of a floating nature, while the lemon yellow flowers are very pretty. *Pistia stratiotes*.—This, which floats on the surface of the water, forms rosettes of pretty pale green leaves. *Pontederia cordata*.—Heart-shaped bright green leaves, and spikes of light blue flowers. *Pontederia (Eichornia) crassipes*.—A floating plant with swollen leaf-stalks, and spikes of lilac-blue flowers, sometimes called the Water Hyacinth. *Myriophyllum proserpinacoides*.—The long stems of this, clothed with pretty pinnate leaves, are very attractive. The position, we think, is scarcely fitted for a *Nymphaea*.

**SLUGS IN GARDEN (*Grosvenor*).**—Perhaps the simplest and, at the same time, one of the most effective methods of getting rid of slugs is to apply lime water to the soil which is infested with them. This may be made by putting a quantity of quicklime in a large tub, which should be filled with water. Stir the mixture, allow the lime to settle, then draw off the clear liquid for watering wherever the slugs are numerous. This mixture is deadly to the slugs, while it does good to the plants. "Slugicide" is an excellent slug destroyer. Lime, salt, soot, and nitrate of soda will kill slugs, and they may be applied to the soil with advantage. It is of no use applying them once, however; do it several times. If there is nothing sown yet, you ought to get rid of them by using these. If seedlings are there you must trap them by means of sliced Turnips and Potatoes, Cabbage leaves, or sawdust. Put these baits out in the evening, and search for the slugs by lantern-light later.

**IMPROVING LAWN (*E. R. F., Kelvedon*).**—To improve your grass you should, first of all, give it a good raking, which does good by stimulating the grass. The grass will soon recover from this rough treatment, and look all the better for it. You should then obtain some special lawn manure from a good seedsman, mix this with rich sifted soil in the quantity advised by the vendors, and apply to the lawn a fortnight after mixing. Turn the heap several times, so as to mix soil and manure thoroughly. Spread the mixture evenly over the grass, and rake it over lightly. In places where the grass is thin you should, in a fortnight's time, sow lawn seeds.

**ROCK PLANTS (*Osw-Lease*).**—Any of the following could be employed, and many could be sown in the crevices between the stones. *Corydalis cespitosa aurea*, *Sedum corymbosum*, *S. dasyphyllum*, *Aubrietia*, *Lychnis Lagasce*, *Erinus* of sorts, *Myosotis alpestris*, any of the smaller *Husselecks*, *Snapdragons* and *Wallflowers* if it is possible to plant near the margin, *Gentiana scabra* (a fine plant for this purpose), *Campanula pusilla*, *C. p. alba*, *C. muralis*, *Herniaria glabra*, *Thrift*, *Dianthus caryophyllus*, and others. Those with an asterisk could be introduced by means of seeds. The plants should be pulled into small pieces and dibbled in between the joints, in which fresh soil should be placed. The seeds must not be deeply covered.

**IXIAS (*Mrs. Dinesen, Denmark*).**—In this country *Ixia* are usually grown in a greenhouse. They will, however, do well out of doors in the South of England if planted in a warm border at the foot of a south wall in light, well-drained soil. They will not grow and flower well in the open garden. We are afraid you will do no good with them in the open border. You must either give them a special place in some warm sunny spot or else grow them in pots in the greenhouse. The Spanish *Iris* is quite hardy and will grow quite well with the treatment of an ordinary border plant, but the *Ixia* is more tender and needs more care. Your best plan will be to dig up the bed and search carefully for the bulbs, and if they have not perished lift them and replant in soil consisting of loam, with some dried cow manure and sand, in a sunny border as stated.

**CARNATIONS FROM SEED (*O. J. S.*).**—In the first place it is important to get good seed, otherwise all your efforts will be wasted. Obtain a shallow box, fill it almost to the top with light sandy soil, having first made some holes in the bottom of the box for drainage, and place some rough material in the bottom of the box to keep the drainage clear. The soil should consist of three parts turfy loam and one part leaf-mould, adding a fair amount of sand; this should be passed through a fine-meshed sieve. You may sow the seed now. Cover it very lightly indeed, as the seed is small. After sowing put the box in the frame. Keep the frame close, and shade when sunny. As soon as the plants are so large that you can get hold of them conveniently—that is, when they are about 1 inch or even less high—you can transfer them into other boxes, which must be filled with a soil similar to that already mentioned, except that you must add as much dry cow manure as leaf-soil. Place the boxes or pots into which you have transferred them back in the cold frame, shade for a few days, then take the light off altogether; protect only from heavy rains. When the plants have made good growth, say, at the end of a month or six weeks, they should be planted out in the border where they are to flower. Give them a well-dug soil enriched with some decayed manure. Allow plenty of room between each plant. We are afraid your old plants have died.

**SNAIL FLOWER (*Oreper*).**—*Phaseolus Caracalla* (Snail Flower) is a native of India, though it is now widely distributed over the warmer regions of the globe. In this country it needs a warm greenhouse or a stove for its development, and it will not thrive out of doors even in the mildest parts of these islands. The seed should be sown at once, and in a structure kept at a temperature of

60° to 65° it will quickly germinate and grow away freely afterwards. It needs a good open soil, such as two parts loam to one part each of leaf-mould and dried cow-manure, with about half a part of sand. A fair amount of sunshine is necessary to its well-doing, and the foliage should be occasionally syringed in order to keep red spider in check, as these troublesome pests are liable to attack the leaves and cause them to turn yellow.

**PINK CARNATIONS (Carnation).**—Some of the hardier pink-flowered sorts are Baby Castle and Duchess of Fife. We know an instance, not far from where you write, where the bluish Malmesdon stood out for years on a west border, flourishing and flowering amazingly till patches 2½ feet across were formed. In other districts near, not this alone, but many other sorts usually said to be hardy, failed completely. Mary Morris, Lady Nina Balfour, and Mrs. Nicholson are others in the same shade, while Lady Hermoine, Andrew Noble, and Lady Mimi represent the best of the newer types. Purchase from some reliable firm a variety of the shade you prefer, and select the best for future use. Where special shades of colour are preferred it is a good plan to raise seedlings, as these are much more vigorous than layered plants.

**SCALE ON JASMINE (Colonel Smythe).**—We never saw a worse example of the scale insect attacking an outdoor plant. We should advise syringing with paraffin emulsion, which can be prepared in this way: Take a piece of soft soap about the size of a hen's egg, put it in a basin or some other receptacle, then pour on this a little paraffin and knead it with a piece of stick, or, better still, the fingers, till all the paraffin is absorbed, and continue this till it will take no more, the soap being then transformed into a tougher and more waxlike substance. Then dissolve this in a pail of hot water, and when sufficiently cool syringe the plants with it, taking care to wet every portion above ground, but keep as much as possible from the roots. From their numbers it is more than probable that a second application will in your case be necessary to destroy these pests.

**VIOLETS UNSATISFACTORY (Violet).**—The specimen plant sent us is suffering neither from disease or from insect attack. Its roots are strong and abundant, and the foliage is healthy but weak, as though it had suffered from the lack of sufficient water and from too little air. First of all give the bed a soaking of clear water, making sure that the soil is thoroughly saturated right through to the bottom, afterwards top-dressing the border to the depth of 2 inches with loam and horse-manure in equal proportions and well mixed; tread the same down or otherwise press it firmly round the plants. Give the bed, in the course of another week, a good soaking of weak manure water from the stable or cow-yard, or guano water would do mixed at the rate of one handful dissolved in three gallons of water. With this treatment and abundance of air on all favourable occasions your plants should soon come round. All decayed flowers and partly-decayed leaves should be picked off.

**TO IMPROVE LAWNS (M. H. X.).**—The lawn which rests on clay soil, and is inclined to be wet owing to insufficient drainage, can only be temporarily improved until it is efficiently drained. The finer and best grasses which go to make a lawn absolutely refuse to grow on cold and badly-drained land. The best you can do now to improve the surface for playing on during the coming summer is to give it a dressing of roadside scrapings, adding a couple of barrow-loads of coarse sand to each cartload of the scrapings. This will help to dry and consolidate the surface. To each cartload of the scrapings add ½ cwt. of bone meal and ¼ cwt. of fish guano as well as the sand. Mix well together and apply at the rate of three cartloads to the lawn, spreading the same evenly all over, and raking it into the grass with an iron rake, afterwards rolling it well in on a dry day. To the lawn that is drier and easily burnt up we should give a dressing of rich garden soil and well-decayed manure in equal proportions. Four cartloads of this dressing well mixed together would be a good dressing for this lawn.

## THE GREENHOUSE.

**ORIGIN OF STREPTOCARPUS HYBRIDS (Enquirer).** The present race of hybrid forms have been obtained almost entirely by the crossing and intercrossing of three species and their progeny. These three are *Streptocarpus parviflorus*, a small white-flowered kind introduced from South Africa in 1882; *S. Rexi*, with bluish flowers, sent here in 1824; and *S. Dunni*, which bears but one huge leaf, and has flowers of a reddish tinge. To Mr. Watson of Kew is due the credit of laying the foundation of the present-day race of hybrids, for about twenty years ago he raised some distinct and striking forms. On July 28, 1887, two of these new varieties were awarded first-class certificates by the Royal Horticultural Society, viz. *S. kewensis*, the result of intercrossing *S. Rexi* and *S. Dunni*; and *S. Watsoni*, whose parents were *S. Dunni* and *S. parviflorus*. From these beginnings the main portion of the present-day hybrids have by a gradual process of cross-fertilisation and selection been built up. Besides these, hybrids have been raised from *S. Fennini*, *S. Galpini*, *S. polyanthus*, and *S. Wendlandi*.

**CAMELLIAS SPORTING (West Sussex).**—Camellias are naturally inclined to "sport," and many instances such as you describe continually come under our notice. For all this, we cannot recall such a radical change as that which has taken place in your plants, for as a rule it is limited to a particular plant or part of a plant. Some varieties vary a good deal in their marking year by year, and perhaps when yours flower again next season many of them may revert to the original tint. In one respect your experience entirely coincides with our own, and that is the irregular-shaped blossoms, to which the term *Anemone*-flowered Camellias is often applied, are far more liable to behave in this way than the very formal flowers. We know of nothing you can do to check this sportive tendency, for it is quite an inherited feature.

**SCALE ON FERNS (H. W.).**—The Fern-frond is simply swarming with scale insects; indeed, you should burn every plant so infested. The small white ones are the immature insects which have wintered under the brown cases, some of which are still attached to the frond. With the return of spring these white specks will increase in size, numbers, and destructiveness. If you wish to try and save your plants, isolate them at once from all others, cut off all bad fronds, and dip the head of each plant into a strong mixture of Gishurst Compound, soft soap, or one of the many insecticides. This must be done several times to destroy all the scale, and in all probability the young fronds of the Ferns will also suffer. The *Clematis montana* seedlings should have been lifted when dormant, and dibbled singly into pots or boxes of soil. If done now some of them are sure to die, but as you have so many this is not of much consequence.

**STREPTOCARPUS (Enquirer).**—If the pollination of the flower is effectual it quickly loses its freshness and withers up.

**CRASSULA LACTEA (C. H. F.).**—Your greenhouse is decidedly too cold for this *Crassula*, as it needs a good light position in a structure with a minimum winter temperature of 50°.

**BULBS AFTER FLOWERING (Daffodil).**—As you have no space for planting out, the only thing you can do is to allow the bulbs to remain in the boxes and stand them in a sheltered spot. They will need to be watered till the foliage dies down. In August, or July would be better, when you lift your present crop of bulbs, the ground must be well manured and dug, and those of this year's flowering planted. Before planting them the bulbs should be dried and cleaned, and where there are quantities of one kind it will be an advantage to sort them in their different sizes. It will be a couple of years before the bulbs flower much, but they should each year be lifted and cleaned, the ground manured and dug, and the bulbs again replanted.

**CACTUS AND STAPELIA (Wilbraham).**—That the plants in question are not in good condition is very evident by the pieces sent, but the actual cause, as far as we are concerned, can only be a matter of conjecture. Appearances point to the structure in which they have been kept during the winter being allowed to get too cold, with probably an excess of moisture, either in the atmosphere, at the roots, or both. These succulent plants do best where a light buoyant atmosphere is maintained throughout the winter months, and in a temperature of 50° to 60°. Though they may be kept fairly moist at the roots when growing freely, in winter they need only sufficient water to prevent the soil being parched up. A light structure well exposed to sunshine suits these plants best.

**CINERARIAS DISEASED (J. G.).**—We have carefully examined the leaves sent, and cannot find any trace of fungus thereon, in which case spraying is not likely to be of much use. The *Geranium* leaves appear to us quite normal, for when spring comes round many of them often turn yellow and die off preliminary to the plants making their new growth. The *Cinerarias* and, in a more marked degree, the *Begonias* have been badly attacked by yellow thrips, an extremely minute insect which carries out the greater part of its ravages while the leaves are very young. Too dry an atmosphere is very favourable for its development. The best way of getting rid of it is to vaporise occasionally with the XL All Vaporiser or one of the several methods of dispersing nicotine in the shape of vapour.

**SEEDS FROM JAPAN (Japan).**—The seeds should be sown at once. The *Chrysanthemum* will be best sown thinly in a pot or pan of light sandy soil, with a soil covering of not more than a quarter of an inch. This will be best in a temperature of 45°, and the seed, if good, will vegetate in a fortnight or even less. The *Dianthus* should be sown as above and transplanted, or sown thinly in the open. The *Peony* and *Hibiscus* will be best sown in the open, grown in shallow drills mostly filled with sand. The first-named may not appear before spring, 1907. Do not transplant the *Peony* in the growing stage. Sow the *Primula* in a moist spot in the open, or in a shady place in finely-broken soil and cover lightly. If sown in pots or pans the

seedlings could be potted off when large enough. Seedlings may continue to appear for a year or even more.

**GERANIUM LEAVES DISEASED (J. F. S.).**—The *Geranium* leaves are badly attacked by one of the leaf fungi, whose ravages seem greatly on the increase. As the trouble is limited to one variety, we should burn the plants at once and replace this variety by another white-flowered kind, say *The Ghost*, which is of good constitution. If, however, you wish to keep your plants, isolate them at once and syringe with a solution of potassium sulphide. This, popularly known as liver of sulphur, may be prepared by dissolving 1oz. in a quart of hot water, then make it up to 2½ gallons with cold water. With this syringe the plants, and repeat the process in about four days, after which leave an interval of a week between the applications, which may be discontinued when the plants are free. The plants should be laid on their sides, so that the preparation does not enter the soil.

## TREES AND SHRUBS.

**WINTER-FLOWERING SHRUBS (Iris).**—Good hardy winter-flowering shrubs are the Mezereum (*Daphne mezereum*), Witch Hazel (*Hamamelis arborea*), *Jasminum nudiflorum* (winter flowering *Jasamine*), *Forsythia suspensa*, *Lonicera fragrantissima* (winter-flowering Honeysuckle), *Winter Sweet* (*Chimonanthus fragrans*), *Pyrus japonica*, and *Cornus Maa*. Those marked with an asterisk should be planted against a wall, the others may be grown as bushes. Other winter-flowering plants, not shrubs, are the Christmas and Lenten Roses, Winter Aconite, *Iris reticulata*, *Iris stylosa*, together with, of course, *Crocus*, *Snowdrop*, *Scilla*, *Chionodoxa*, and one or two of the early-flowering *Daffodils*.

**SOIL FOR WILLOWS (John Stillard).**—Conditions such as you name (a marshy place sometimes flooded) should be very suitable for Willows in general.

**PLANTING SHRUBS (F. E. S.).**—The best time to transplant the different shrubs mentioned is the latter part of October or in November, as then they have time to become well established before the flowering season.

**MYROBELLA HEDGE (W. H. Hodgson).**—As your hedge has been planted so recently the better way will be to leave it a season to become established before cutting it back, which may be done any time next winter. The height will depend upon the bushiness of the plants, but about 15 inches should be a very suitable height. A good watering will most probably greatly assist your *Hollies*, and if the weather is hot and dry a frequent syringing is very beneficial to newly-planted specimens.

**IMPROVING BEECH HEDGE (Kensmare).**—A very good idea, but as the Beech hedge has been planted six years we are afraid that if you planted *Hollies* in the centre they would have too severe a struggle for existence to prove satisfactory. Much will, of course, depend upon the distance between the two rows of Beech, which is not stated in your letter. Would it be possible to plant the *Hollies* just outside of the Beeches, as they would thereby get more light, which is so essential to their welfare. We should prefer well-rooted plants 15 inches to 18 inches high to small seedlings.

## ROSE GARDEN.

**ROSES FOR ARBOUR (Sparham Camp).**—On the exposed side of the arbour you should plant the Dutch Honeysuckle and *Clematis montana*; these are two strong-growing plants that would be least likely to suffer there. Roses suitable for training over the arbour are *Mme. d'Arblay*, white, summer-flowering only; *Mme. Alfred Carrière*, whitish, summer and autumn; *The Garland*, white, summer; *Reine Olga de Wurtemberg*, red, summer and autumn; *Dorothy Perkins*, pink, summer. *Clematis Jackmanni*, purple, late summer and autumn, is also suitable. Good Roses for the arch are *Crimson Rambler*, red, summer only; *Félicité Perpétue*, white, summer and autumn; *Aimée Vibert*, white, summer only.

**PRUNING ROSES (Perplexed).**—Yes, we should advise you to prune back again to the dormant buds. You must cut back the newly-planted Roses as advised in our article on "The 'A B C' of Rose Pruning," otherwise you will not get good strong growths from the base, and, as you are afraid that the growths already pushing may get caught by frost, it will, therefore, be doubly advantageous to cut them back further still. Yes, you can apply soot and lime to both *Carnations* and *Roses* now; it will do them both good. Both are suitable for applying as a top-dressing. Your plant of *Tom Wood* should be pruned as follows: cut back the shoots from base with top leaves unfolding to within 2 inches of their

base. From your description of them, we should say they are not well ripened, and must be cut back hard. You might leave the best of the stout shoots 6 inches, and the other two about 4 inches long. Prune to a bud pointing outwards. Next year you need not prune so hard.

**PRUNING ROSES (A Reader).**—You will best understand what is meant by moderate, medium, and vigorous-growing varieties by referring to the long list given in the article on page 157 (March 17). Take the Duke of Wellington, a well-known Rose, as an example of a moderate or rather weak-growing Rose; Tom Wood, Mrs. G. Dickson, or Annie Wood as a type of Rose of fairly strong growth; and Ulrich Brunner, Clio, or Duke of Edinburgh as vigorous-growing sorts. By taking these, or any of the varieties mentioned in the respective lists you may happen to have, you will soon understand the varying degrees of growth. You might, perhaps, understand more clearly if we say that the size of the shoots of a weak-growing sort is about the thickness of an ordinary penholder, while those of a vigorous variety may be the thickness of a lead pencil or even thicker. By taking these measurements as a rough guide, together with the lists given, you ought to be able to arrive at a satisfactory conclusion.

**PRUNING REVE D'OR (A. Warner).**—This grand old Rose, one of the fastest growing we have, needs very careful handling to obtain an abundance of blossom. When on a south or west wall the growths should be spread out as much as possible, but do not cut much away. So long as the old wood passes through the winter uninjured it should be retained; but the lateral shoots are shortened according to their strength. If small and thin, cut back to two or three eyes; if strong, retain as much as a foot, and even more if there is space for it. Do not try to keep this Rose nailed in trim and regular as you would a Peach tree, but just allow the long annual growths to bend away from the wall when they will be wreathed in blossom. Should growths appear too dense after the first crop of flowers, what pruning is really essential should then be done. This would consist in removing old or worn-out growths. Réve d'Or is a very shy bloomer for the first few years of its life, but after this, with care at the root and spreading out the growths, there is no reason why a grand crop of its golden clusters should not be secured.

**MARÉCHAL NIÉL UPON A SOUTH WALL (J. B. M.).**—We should advise you to waste no more time upon your evidently dwindling plant. This variety should be budded upon a short standard Briar, and have plenty of roots. You would succeed far better with a Rose such as Celine Forestier, Bouquet d'Or, Réve d'Or, or Duchesse d'Angers, all of which possess a more robust constitution and are more suitable for the suburbs of London than Maréchal Niel. The old soil should be taken out to a depth of 2½ feet, and after putting in about 6 inches of broken bricks, stones, &c., to provide drainage, replace the old soil with a few barrowloads of turfy loam, mixing with it about one-fourth its bulk of well-decomposed manure and a sprinkling of half-inch bones.

**ROSES AND BULBS (F. A. C.).**—The recipe you send is known as Tonks' manure, and a splendid manure it is. You can apply it to your Roses in the borders containing the bulbous plants, but we should advise you to give the bulbs a much lighter application. The roots of the Roses would not spread much more than 15 inches each way. By measuring up the number of Rose plants, you can ascertain how much of the manure you would require, as for each plant you would want about 2oz. of Tonks' manure, taking care to scatter this amount around each bush or standard, and not further away than 15 inches to 18 inches. The climbing Roses with Fuchsias at the base will be much benefited by the manure, and it will also be good for the Fuchsias. You could very well supplement this application by liquid manure during May and June.

### KITCHEN GARDEN.

**VALUE OF FOWL MANURE (Amateur).**—Poultry manure is a valuable fertiliser if carefully used. As fast as you can obtain it from the poultry-run mix it thoroughly with twice the quantity of fairly dry soil. Keep it in a heap for a few months and there will be a valuable plant food, and it will be in a better condition for applying to the soil than if it were applied direct, for then, as you say, it would probably do more harm

than good. When it has been well mixed with soil as above directed, and has lain in a heap for a few months, it may be applied as a top-dressing, slightly forked in, with great advantage to the crops.

### MISCELLANEOUS.

**HAND-LIGHTS AND BELL-GLASSES (Fish).**—You could use these for protecting the flowers from frost and cold of plants that bloom in the winter, such as Hellebores, Irises, and alpine. Often the flowers of these are damaged during winter, and a bell-glass or hand-light would keep them fresh and beautiful for a far longer time. You would, of course, have to give air by tilting the glass. They are also useful for protecting early salads and other vegetables. You could strike cuttings of Violas, Arabis, Aubrietia, and other plants in the summer, and Rose outtings in the autumn, with their aid. These are just a few uses to which they could be put that come to mind.

**A BLACKBIRD NUISANCE (Blackbird).**—We have no special reason to complain of blackbirds as being a garden nuisance in the South, except in the soft-fruit season, and then these birds are usually kept at bay by freely using fish netting to cover up the fruits. Beyond destroying the nests—a practice, however necessary in your district, which seems harsh and unfeeling—there is no better plan to keep the birds away than to use a small shot-gun. Shooting at birds among fruit often does great harm to the bushes. You may use soot and lime, and even Paris green or Hellebore powder, on trees or bushes now, but you cannot do that when fruit is formed. You do not say in what way blackbirds are a nuisance now. We have never found them so at this time of the year.

**CROSS-FERTILISATION (A. Herby).**—The process of cross-fertilisation is effected by taking the pollen from the anthers (male) on the stamens of one flower and transferring it to the pistil (female) of another flower. Thus to intercross vegetables you must have the plants in bloom before you can do so. In order to ensure the cross being between two certain flowers, you must take care that no other foreign pollen, or even its own pollen, comes in contact with the stigma. Usually the stamens and pistil are on the same flower, and, in order to effect a true cross, the anthers must be removed before the pollen bursts out; otherwise the pistil might be fertilised with its own pollen, and it would then be useless transferring other pollen to it. You should obtain a book on elementary botany and study the various parts of the flower before you attempt cross-fertilisation.

**NAMES OF PLANTS.—J. T.—1 and 3, Dendrobium thyrsiflorum; 2, this may be the same, but without seeing a bulb and leaf we cannot be sure. Judging only by the flower we should say it is Dendrobium Farmeri album; the growth of this is shorter and the bulbs are somewhat angular. Nepenthes.—Arundinaria falcata, often known in gardens as Bambusa gracilis. The Dendrobium is a very good form of D. nobile album, which, though it can scarcely be called rare, is not at all common.—James Dent.—1 and 2, Dendrobium crassinode; 3, D. Pierardii. Fish.—Primula denticulata alba.—H. T.—1, Helianthemum vulgare var. hyssopifolium f.-pl.; 2, Pasque Flower (Anemone Pulsatilla); 3, Lithospermum prostratum; 4, Polygala Chamaebuxus var. purpurea; 5, Muehlenbeckia varians; 6, Genista hispanica.—Castle.—Begonia fuchsoides var. miniatum.**

## SOCIETIES.

### TORQUAY SPRING SHOW

An excellent show was held at the Bath Saloons, Torquay, on the 29th ult., the entries constituting a record for a spring show and being of unusual excellence, while brilliant weather led to so large an attendance of residents and visitors that the Torquay District Gardeners' Association achieved financial success. Orchids were especially good, and a curious freak of Nature that attracted considerable attention was an Arum with two pure white leaves, the same tint precisely as the spathe, exhibited by the Dowager Countess of Crawford.

#### PRIZE LIST.

Six flowering plants: First, Miss Congreve. Six foliage plants: First, Miss Congreve; second, Mr. J. Quick. Three flowering plants: First, Mrs. Hassall; second, Miss Congreve; third, Mrs. Trevor Barkley. Six Ferns: First, Miss Lavers; second, Miss Congreve; third, Mr. S. Cogan. Specimen Azaleas: First, Mrs. Hassall; second, Mr. J. Quick; third, Mrs. Whitely. Three Analeas: First, Mrs. Hassall; second, Mr. J. Quick; third, Colonel Cary. Group of miscellaneous plants: Silver cup, Miss Lavers; a handsome group composed of Orchids, Tulips, Arums, Lilacs, Amaryllis, Narcissus Bulbocodium, set off with Caladiums, Palms, and long culms of flowering Bamboo. Group of Orchids: First, Mrs. Trevor Barkley, with a very high-class stand. Three Orchids: First, Miss Lavers; second, Mrs. Trevor Barkley; third, Miss Congreve. Six Cyclamens: First, Mr. W. H. Bulfield; second, Miss Lavers. Six Glorinas: First, Mrs. Hassall; second, Miss Congreve. All excellent plants. Six Primulas: First, Miss Congreve; second, Mrs. Whitely; third, Mr. W. E. F. Wingate. Six Spiraeas: First, Mrs. Whitely. Three Deutzias: First, Mrs. Hassall; second, Colonel Cary. Six flowering table plants: First, Mrs. Trevor Barkley; second, Miss Congreve; third, Mrs. Whitely. Six foliage table plants: First, Mrs. Trevor Barkley; second, Miss Congreve; third, Captain Tottenham. Six Amaryllis: First, Mrs. Trevor Barkley; second, Mrs. Whitely. Twelve

Hyacinths: First, Captain Tottenham; second, Mr. E. F. Wingate; third, Mrs. Fordyce. Six pots of Narcissus: First, Mr. F. Wingate; second, Mrs. Fordyce; third, Colonel Cary. Six pots of Frezias: First, Mrs. Hassall; second, Mr. F. Wingate; third, Colonel Cary. Three pots of Lily of the Valley: First, Mr. J. Quick; second, Miss Lavers. Six pots of Tulips: First, Captain Tottenham; second, Miss Congreve; third, Mr. F. Wingate. Six Cinerarias: First, Mrs. Fordyce; second, Mr. S. B. Cogan; third, Colonel Cary. Six Cineraria stellata: First, Captain Tottenham; second, Miss Congreve; third, Mrs. Whitely. Specimen Cineraria: First, Miss Congreve; second, Colonel Cary; third, Mr. S. B. Cogan. Six Mignonette: First, Mrs. Fordyce; second, Colonel Cary. Specimen Palm: First, Mrs. Trevor Barkley; second, Miss Congreve. Twelve Polyanthus: First, Colonel Cary; second, Miss Lavers. Special prizes were given by Messrs. Barr and Sons and several local nurserymen, and two prizes were given for collections of vegetables. There were seven entries for dinner-table decoration, first prize being awarded to Mr. W. Minifre for a table so fully decorated that there was no room for plates.

#### NURSERYMEN'S EXHIBITS.

The Devon Rosery, Torquay, showed several large boxes of cut Roses, Analeas, Frezias, Anthurium, Aconita armata, A. Drummondii, A. cordata, Tree Carnations, Boronia megastigma, E. heterophylla, Spiraea, Crotona, and Palms; while on their fruit farm's stand were punnets of gigantic Strawberries, Mushrooms and other vegetables interspersed with Violas and Narcissus. Messrs. E. Veltch and Son, Exeter, staged Prunus Mame f.-pl., P. triloba, P. Watereri, Erica Veltchii, Sutherlandia frutescens, Thymecanthus rutilans, Primula lewensis, Magnolia conspicua, M. stellata, Impatiens Holstii, Calceolaria Burbridgei, Sarraacenia Drummondii, Echinacea angustata, Aconita roseana, and a collection of rock plants including Primula nivalis, P. viscosa, P. Allioni, P. caudicaria, P. denticulata, Androsace arachnoides, A. pyrenaica, A. sempervivoides, A. carnea, Saxifraga Rhodi superba, S. coriophylla, and many other plants. Messrs. W. H. Smale and Son had Cyrtocarpus reflexa, Nicotiana Sandersi, Araucaria excolis, Cyca revoluta, Clivia miniata, Tulips, Pelargoniums, Hyacinths, and Calceolarias. Messrs. Barr and Sons showed a large assortment of Daffodils, among which were many uncommon varieties, including Peter Barr, Henri Vilmorin, Isolds (a very large and bicolor trumpet), Cherry Ripe, Cassandra, Blackwell, Salmonetta, Arlequin, Firebrand, Mrs. G. H. Barr, Janet Image, Mountain Maid, The Sisterhood, Cygnus, Hatfield Beauty, Strongbow, Crescent, White Queen, and White Lady. The firm also staged a good collection of rock plants. Messrs. Mayne and Allward showed assortments of miscellaneous plants, and Mr. J. Heath Violas in variety.

### NATIONAL CHRYSANTHEMUM SOCIETY.

THE executive committee of the above society held a meeting on the 28th ult., at Carr's Restaurant, Strand, when Mr. Thomas Bevan occupied the chair.

There was a fairly full attendance and a somewhat busy evening, the consideration of the schedule for the current year occupying a good part of the evening's work. It was announced that the prize-money to be offered will be rather in excess of the amount offered last year, and the insertion of several new classes was accordingly made. The various judges were, subject to acceptance, duly appointed.

The society, recognising the fact that the Royal Agricultural and Botanical Society of Ghent was the first continental society to offer the National Chrysanthemum Society hospitality abroad seventeen years ago, passed a unanimous vote of condolence on the death of the Comte Kerschbore de Denterghem, the president of the Ghent society.

Mr. C. H. Curtis announced the completion of the report on the Conference of Early-Flowering Varieties at the Crystal Palace last October, which will shortly be in the hands of the members. He also presented a report from the publication committee recommending the issue of a Year Book for 1907. It was resolved that the same be issued.

### LIVERPOOL HORTICULTURAL ASSOCIATION.

A RECORD show, both for quality and quantity, was that held on the 28th and 29th ult. by this society. The exhibits for competition numbered 285, an increase of 29 over those of last year, while the non-competitive exhibits were also larger than usual, with the result that the magnificent hall was quite inadequate for their reception. Mr. J. Braccogiolle, gardener to Alderman W. H. Watts, won first prize for a group of plants. For ten pots of hardy herbaceous or bulbous plants Mr. J. Stoney, gardener to F. H. Gossage, Esq., was first. There were eleven entries for twelve Hyacinths, distinct, Mr. H. Holford, gardener to E. Whitley, Esq., being first. For twelve pots of single Tulips the first prize was won by Mr. J. V. Thompson, gardener to Mrs. E. P. Sinclair. For a collection of twenty-five distinct varieties of Daffodils Mr. T. Carling, gardener to Mrs. Coppe, gained Barr's silver flower-vase as the first prize. For six hybrid Amaryllis Mr. T. Winkworth, gardener to E. Brocklebank, Esq., won. Gold medals were awarded to Messrs. Charlesworth and Co., Bradford, for Orchids; and Messrs. E. P. Ker and Sons, Liverpool, for Amaryllis. Awards of merit were given to Messrs. Hogg and Robertson for Daffodils, Mr. E. Baobe (gardener to A. H. Bencke, Esq.) for seedling Dendrobiums, Mr. C. A. Young for cut Carnations, Messrs. Thomas Davies and Co. for new Tulips, Mr. W. Rowlands for Roses, &c., Sir Joselyn Gore-Booth, Bart., for Daffodils, Messrs. John Cowan and Co., Fishlock Brothers, Gilbran, and Sutton and Sons, and T. Raffles Bailey, Esq. As usual, the arrangements were carried out by a sub-committee under Mr. T. Foster, chairman, and Mr. H. Sadler, secretary. Unfortunately, the attendance was poor



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The largest and finest stock in the country for outdoor planting and for greenhouse cultivation.

#### DWARFS AND CLIMBERS.

In 5in. (48-sized) pots, 10/6 to 18/- per doz., 75/- to 85 per 100. In 8in. (24-sized) pots, 30/- to 42/- per doz., £10 to £15 per 100.

N.B.—NEW ROSES: *Lady Gay*, 3/6 to 10/6 each; *Waltham Bride*, 7/6; *Waltham Rambler*, 1/6 to 5/-; *David R. Williamson*, 7/6; *Dr. William Gordon*, 7/6; *E. T. Cook*, 7/6; *Earl of Warwick*, 3/6; and many others 2/6 to 3/6 each.

#### EVERGREENS.

A magnificent stock of well-transplanted plants from 2 to 10ft. high for Spring planting, at very moderate prices. Descriptive Catalogue free on application.

### HARDY CLIMBING PLANTS IN POTS.

Large collections of Ampelopsis, Clematis, Honeysuckles, Ivies, Jasmines, Vines, Wistarias, and all other hardy climbers, 9/- to 18/- per dozen; extra strong, 24/- to 42/- per dozen.

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in great variety, including Phlox, Pæonies, and all other showy and popular kinds. Priced Descriptive Catalogue on application.

## WM. PAUL & SON,

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### HARDY PERENNIALS.

The largest, most complete and up-to-date collection in Great Britain.

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### HERBACEOUS & ALPINE PLANTS.

Hardy Water Lilies, Bamboos, Bog Plants, Hardy Orchids, Carnations, Tree and Border varieties, Delphiniums, Phloxes, etc. Roses in pots, Hardy Climbers, Clematis, Evergreen & Flowering Shrubs.

All hardy, strong and true to name.

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Spring Clearance Sales.—All roses and trees offered kept moved back are retarded to plant with complete safety through April. 12 acres of Roses. All carriage paid for cash. Established 50 years. 12 very best Standard Roses, 14/-; 12 best Half Standard Roses, 13/-; 50 very best Dwarf Perpetual or Bush Roses, 19/-; 25 best Dwarf Ditto, 9/-; 12 best Teas and Hybrid Teas, 7/-; 6 finest Climbing Roses, 3/6; 12 best Perpetuals, 5/6; 6 best Rambler Roses (assorted), 3/6; 6 Crimson Ramblers, 3/-; 6 best Moss Roses, 3/-; 6 Crimson or Pink Monthly Roses, 2/9; 6 best China Roses (assorted), fine for Beds, 3/-; 12 Sweet Briars, 3/-; 12 best Roses for rockeries, banks, under trees, etc., 4/-; 20 Standard Roses best sorts, but unnamed, 12/6; 50 unnamed Roses, of Teas, Climbers, Perpetuals, etc. (assorted), 12/6; 12 best Roses, well established in pots, for flowering in greenhouse at once, or for planting outdoors, for beds, borders, etc., 9/- to 10/-; best Climbers, Ramblers, for Pergolas, Poles, etc., 1/- to 1/6 each. Thousands of Shrubs, Climbing Plants, Clematis, etc., all best sorts, in pots, 1/- to 1/6 each; extra sized Roses, as Greenhouse Climbers, in pots, best sorts, shoots, 9 to 12ft., 3/6 to 5/- each. Descriptive Catalogue and Cheap Lists Free. "How to Grow Roses" Book, post free, 4d.

JAMES WALTERS,

Rose Grower,

MOUNT RADFORD, EXETER.

## REMARKABLE OFFER OF VEGETABLE SEEDS, ALSO CHRYSANTHEMUMS & DAHLIAS.

Every gardener should remember the great and important fact that "our seeds grow," and those who wish to keep up a continuous supply of vegetables throughout the year cannot do better than send to us for their seeds. No one can possibly give finer collections at the same price, and if the cost of our selected boxes is compared with general catalogue prices, it will be found that purchasing from us means a saving of 33 1/3 per cent.; or, in other words, that two shillings spent with us gives as good or better results than three shillings expended elsewhere.

ALL BOXES SENT CARRIAGE PAID SECURELY PACKED FOR CASH.

#### OUR 2/6 BOX

contains nothing but first-class seeds.

3 pint Early Peas	1 pkt. Leek (Musselburgh)
3 pint Broad Beans	1 oz. Mustard
1 oz. Beet	1 oz. Onion (W. Spanish)
1 pkt. Broccoli	1 oz. Parsley
1 pkt. Cabbage	1 oz. Parsnip
1 oz. Carrot	1 pint Late Peas
1 oz. Cress	1 oz. Radish
1 pkt. Lettuce (Cabbage)	1 oz. Turnip

Two boxes to one address, 4/9; or six for 14/-.

#### OUR 5/- BOX

A Marvellous Selection, and constitutes grand seed value.

3 pint Peas (Early)	1 pkt. Celery (Red)
3 pint Peas (Late)	2 ozs. Cress
3 pint Broad Beans	1 pkt. Cucumber
3 pint French Beans	1 oz. Leek (Musselburgh)
3 pint Runner Beans	1 pkt. Lettuce (Cos)
1 oz. Beet	1 pkt. " (Cabbage)
1 pkt. Borecole	2 ozs. Mustard
1 pkt. Brussels Sprouts	1 oz. Onion
1 pkt. Broccoli (Early)	1 oz. Parsnip
1 pkt. " (Late)	1 pkt. Parsley
1 pkt. Cabbage	1 oz. Radish (Long)
1 pkt. " (Red)	1 oz. " (Turnip)
1 oz. Carrot (Early)	1 pkt. Savoy
1 oz. " (Late)	1 oz. Spinach
1 pkt. Cauliflower (Early)	1 pkt. Tomato
1 pkt. " (Late)	1 oz. Turnip
1 pkt. Celery (White)	1 pkt. Veg. Marrow

#### OUR 7/6 BOX.

We challenge comparison between this offer and any offer made by anyone else; and, when the quality of seed is also taken into consideration, we are convinced that we shall be simply overwhelmed with applications.

5 pints Peas (for succession)	2 ozs. Cress
1 pint Broad Beans	1 pkt. Cucumber (Ridge)
1 pint French Beans	1 pkt. Endive (Curled)
1 pint Runner Beans	2 pkts. Herbs
1 pkt. Beet	1 oz. Leek (Musselburgh)
1 pkt. Borecole (Curled)	1 pkt. Lettuce (Cos)
1 pkt. Brussels Sprouts	1 pkt. " (Cabbage)
1 pkt. Broccoli (Early)	1 oz. Mustard
1 pkt. " (Late)	1 oz. Onion (W. Spanish)
1 pkt. Cabbage	1 pkt. Parsley
1 pkt. " (Red)	1 oz. Parsnip
1 oz. Carrot (Early)	2 ozs. Radish
1 oz. " (Late)	1 pkt. Savoy
1 pkt. Cauliflower (Early)	1 oz. Spinach (Summer)
1 pkt. " (Late)	1 oz. " (Winter)
1 pkt. Celery (White)	1 oz. Turnip
1 pkt. " (Red)	1 pkt. Tomato
	1 pkt. Veg. Marrow

#### SPECIAL BOX FOR EXHIBITORS.

Price 8/9 post free for cash.

4 pkts. Choice Exhibition Peas	1 pkt. Celery, Giant Red
1 pkt. Broad Beans, Champion Long Pod	1 pkt. Leek
1 pkt. Runner Beans	2 pkts. Lettuce
1 pkt. Dwarf Beans	1 pkt. Onion, Atlas Craig
1 pkt. Beet, Extra Select Dark Red	1 pkt. Parsnip, Hollow-crowned
1 pkt. Brussels Sprouts	1 pkt. Parsley, Moss Curled
3 pkts. Cabbage, Giant Red	2 pkts. Radish
1 pkt. Cauliflower	1 pkt. Tomato, Up-to-Date
1 pkt. Carrot, Long Scarlet Exhibition	1 oz. Turnip, New Model
1 pkt. Cucumber, Telegraph	1 pkt. " Golden Ball
	1 pkt. Veg. Marrow (Long Green)

#### OUR 10/- BOX.

Another wonderful collection that cannot fail to be greatly appreciated.

5 pints Peas	1 pkt. Kale
1 pint Broad Beans	1 pkt. Lettuce
1 pint French Beans	2 pkts. Lettuce
1 pint Runner Beans	3 ozs. Mustard
1 pkt. Beet	2 pkts. Onion
2 pkts. Broccoli	1 pkt. Parsley
1 pkt. Brussels Sprouts	1 pkt. Parsnip
3 pkts. Cabbage	2 ozs. Radish
2 pkts. Cauliflower	1 oz. Savoy
2 pkts. Carrot	2 ozs. Spinach
2 pkts. Celery	1 oz. Turnip
4 ozs. Cress	1 pkt. Tomato
2 pkts. Cucumber	1 pkt. Veg. Marrow
1 pkt. Endive	

#### OUR 21/- BOX.

The contents of this box can be varied if desired to make up same value.

16 pints Peas (Early, Medium, and Late)	2 pkts. Gourd or Pumpkin
3 pkts. Broad Beans	4 pkts. Herbs (Sweet and Pot)
1 1/2 pint Runner Beans	1 pkt. Leek (Giant)
1 pkt. Beet (Dark-leaved)	3 pkts. Lettuce (Cos and Cabbage)
1 pkt. Borecole (Curled)	6 ozs. Mustard (White)
1 pkt. Brussels Sprouts	1 pkt. Melon (choice)
3 pkts. Broccoli (Early and Late)	4 ozs. Onion (White Spanish, etc.)
3 pkts. Cabbage (choice sorts)	1 oz. Parsley (Fine Curled)
3 ozs. Carrots (Intermediate, etc.)	2 ozs. Parsnip (Hollow-crowned)
2 pkts. Cauliflower (Choice)	4 ozs. Radish (Long and Turnip)
2 pkts. Celery (Red and White)	4 ozs. Spinach (Round and Prickly)
8 ozs. Cress (Plain and Curled)	1 oz. Savoy (Drumhead)
2 pkts. Cucumber (Ridge and Frame)	2 pkts. Tomato
1 pkt. Endive (Curled)	3 ozs. Turnip
	1 pkt. Veg. Marrow

#### SPECIAL BOXES OF PEAS.

6 pints, selected ... 3/6	6 quarts, selected 4/9
12 " " " " " 4/9	12 " " " " " 9/-
18 " " " " " 7/-	18 " " " " " 13/-

The varieties comprise all the leading and newest sorts, and will be found 50 per cent. under usual price. We are anxious to get all readers of this paper to prove what thousands have already proved, viz., that "Our Seeds Grow." Send postcard for our New Seed List or New Chrysanthemum and Dahlia List, and same will be sent post free.

### EXTRAORDINARY OFFER OF CHRYSANTHEMUMS AND DAHLIAS.

We are making a most extraordinary offer, which we are confident will be received with approval and appreciation by all chrysanthemum and dahlia growers who wish to have the finest and newest varieties of these favourite flowers.

#### CHRYSANTHEMUMS I I

12 Grand new varieties for 6/-, carriage paid. Mrs. J. M. Darby, Mrs. T. Dalton, Mrs. A. F. Seabrook, Walter Jinks, Mrs. J. Dunn, Old Gold, Embleme Poite vine, Mme. Oberthur, J. H. Silsbury, C. Montigny, Mrs. A. H. Lee, Marshal Oyama.

12 Splendid new Early-flowering varieties for 4/-, carriage paid.

Beacon, Cyril Day, Eleanor, Freedom, Firefly, H. H. Crane, Mrs. A. Cookson, "Jimmie," Pride of Hayes, Perle Châlonaise, Blush Beauty, Champ. d'Or.

12 Choice Exhibition kinds, 3/-, carriage paid.

12 Choice kinds for cutting for 2/6, carriage paid.

12 Xmas Flowering varieties for 2/6, carriage paid.

12 Lovely Single varieties for 2/6, carriage paid.

25 Finest Out-door kinds for 3/-, carriage paid.

All chrysanthemums rooted and properly named.

#### Daotus Dahlias Given Away I I

The following are Pot-roots, which produce earliest blooms, and may also be used for propagating:

12 Magnificent varieties, 7/8 carriage paid. To all purchasers of this selection a FREE GIFT is made of a root of the champion dark kind, W. Hopkins.

12 Choice varieties, 5/- carriage paid. With this selection a root of the splendid scarlet H. W. Sillem is offered as a FREE GIFT.

12 Older kinds, all good, 3/-, carriage paid.

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Send postcard for our New Seed List or New Chrysanthemum and Dahlia List, and same will be sent post free.

**FREDERICK CARTER  
& SONS,  
WOKING**



## TRURO DAFFODIL SHOW.

THE Cornwall Daffodil and Spring Flower Society held a most successful show in the market hall of Truro on the 3rd inst. In every respect the exhibition was an advance upon its predecessors. Never have such numbers of new and beautiful Narcissus seedlings been staged, and never have the classes for hard-wooded flowering shrubs and hardy spring flowers produced such keen competition even in the south-west. Visitors from up-country were astounded at the wealth of rare and tender shrubs and plants in flower so early in the season, as well they might be, and certainly nowhere else in the United Kingdom could such a collection be brought together. Under the efficient management of the Hon. John Boscawen all the details of the show were carried out to perfection, and nothing but praise was bestowed upon the arrangements. Rhododendrons had suffered considerably from the continued frosts and prevalence of biting, easterly winds, the exposed trusses being hopelessly ruined, and only those sheltered by foliage, the flowers of which are necessarily smaller, were fit for exhibition. The prize-winning double Violets were remarkably fine. Colonel F. Hext's bunches being composed of blooms as large as florins and absolutely fresh.

## DAFFODILS.

The best collection of thirty varieties of Daffodils: First, Mr. J. C. Williams, who staged a remarkably fine selection. The only named flower was White Queen, all the remainder being, unfortunately, distinguished only by numbers or letters. Of these unnamed seedlings all were of a high order of merit. Awards of merit were given to two sorts. Second, Mr. P. D. Williams with a stand of almost equal excellence, containing, among others, Incognita, Pure Gold, and Lord Roberts; third, Mr. E. H. Williams.

Six Magni-Coronati: First, Mr. E. H. Williams. Six Medio-Coronati: First, Rev. A. T. Boscawen with Gloria Mundi, Autocrat, Lulworth, Princess Mary, Magpie, and Vesuvius; second, Mr. A. P. Nix; third, Mr. E. H. Williams.

Three Leedsli: First, Rev. A. T. Boscawen with White Lady, Bold, and Mrs. Langtry; second, Mr. E. H. Williams; third, Mr. A. P. Nix.

Six Parvi-Coronati: First, Rev. A. T. Boscawen. Finest bloom of Magni-Coronati in commerce: First, Mr. P. D. Williams with Maximus, very fine and large; second, Mr. A. Blenkinsop with Weardale Perfection; third, Mrs. W. Tyacke with the same.

Finest bloom of Medio-Coronati in commerce: First, Mr. P. D. Williams with Oberon, a flower with a small white perianth and straight yellow cup; second, Mr. H. G. Hawker with Lucifer; third, Rev. A. T. Boscawen with Lady Margaret Boscawen.

Finest bloom of Parvi-Coronati in commerce: First, Mr. P. D. Williams with Armorial; second, Mr. C. Dawson with Horace; third, Rev. A. T. Boscawen with the same.

Finest bloom of English-raised Magni-Coronati not in commerce: First, Mr. P. D. Williams with Irene, a twin-flowered white, with frilled trumpet; second, Mr. P. D. Williams with Hannibal, a large pale yellow; third, Mr. J. C. Williams with an unnamed white.

Finest bloom of English-raised Medio-Coronati not in commerce: First, second, and third, Mr. J. C. Williams with a bright yellow with straight, unfringed trumpet, and two whites, all unnamed.

Finest blooms of English-raised Parvi-Coronati not in commerce: First, Mr. P. D. Williams with Medusa, a hybrid between Grand Monarque and N. poeticus—a striking flower with spreading bright orange cup contrasting well with the pure white perianth, three flowers of great substance on a stem; second, Mr. J. C. Williams with a poeticus having a flat orange crown; third, Mr. P. D. Williams with Western Star, pointed white perianth and yellow orange-edged cup.

Group of Daffodil seedlings that have not been in commerce four years: First, Mr. C. Dawson with Cœur de Lion, primrose perianth and flat orange cup; Dawn, white perianth and flat primrose cup; Cavalier, lemon-white perianth and flat frilled cup edged with deep orange; Bernardino, a Lulworth seedling with large white perianth and spreading yellow cup deepening to orange at the edge; Crest, Bullfinch, Penguin, Armorial, Rosella, Mascotte, Cresset, and Crusader, a very fine stand.

## SPRING FLOWERS.

Twelve hardy spring flowers: First, Mr. P. D. Williams. Six hardy spring flowers: First, Lady Margaret Boscawen.

Best group of Rhododendron blooms, not more than forty trusses: First, Mr. D. H. Shillson with a fine collection including Thompson seedling, R. barbatum, R. b. carneum, Shillsoni, R. arboreum cinnamomeum, R. a. superbum, R. a. roseum, R. a. crispifolium, Duke of Connaught (a fine crimson-scarlet Aucklandi seedling), and numerous other seedlings; second, Mr. J. C. Daubuz; third, Mr. R. Fox.

Finest truss of outdoor Rhododendron: First, Mr. E. Backhouse. Finest truss of Sikkim Rhododendron: First, Mr. E. Backhouse. Finest truss of Rhododendron under glass: First, Mr. R. Fox.

Twenty unforced, hardwood, flowering shrubs: First, Mr. R. Fox; second, Sir A. P. Vivian; third, Lady Margaret Boscawen. There were eight entries in this class, which was the strongest ever competing at the Truro show.

Mr. C. Dawson showed, not for competition, several blooms of the fine Narcissus Sir Francis Drake, a number of splendid specimens of Horace, the finest of the N. poeticus section, and a cross between Grand Monarque and N. poeticus ornatus, a many-flowered white with flat yellow crown edged with red. Captain Pinwill sent from Trebance an enormous cane of Arundinaria Quiloi about 25 feet in height, and flowering canes of A. nobilis.

The nurserymen's stands surrounding the hall furnished a very bright display. The Devon Rosery, Torquay, exhibited cut Roses in quantity, also a large number of pot Roses in bloom. Messrs. R. Veitch and Son, Exeter, showed many rare and interesting plants. Messrs. Wallace and Co., Colchester, had Tulip species, Fritillaries, and other plants. Mr. G. Reuther, Keston, Kent, staged some interesting rock plants. Messrs. Ware and Co., Middlesex, showed a fine collection of Tree Carnations. Messrs. Barr and Sons, London, staged a quantity of fine Daffodils, of which Loveliness was given an award of merit. The Craven Nursery, Clapham, Yorks, contributed a prettily-arranged stand of rock plants. Messrs. Treseeder and Co., Truro, showed Tree Ferns (of which they make a speciality), Palms, Eucalypti, &c.

## CROYDON AND DISTRICT GARDENERS' SOCIETY.

RECENTLY, before a large attendance, over which the president (Mr. J. J. Reid) presided, Mr. F. W. Moore, Stanley Grove, read a well-written essay on "The Properties of Soils," having lantern views to aid him in his remarks. An animated discussion followed the reading of the paper, bearing out the essayist's remarks. Further interest was created by the supplementary remarks of Dr. Augustus Voelcker, an expert in agricultural chemistry. There was quite a large display of exhibits, Mr. F. Oxboby showing Azaleas and Cinerarias, Mr. A. Edwards double Daffodils in pots, Mr. W. Bentley a Davallia, Mr. W. Pauley named varieties of Narcissus grown in moss fibre, Mr. F. W. Moore Cinerarias, and Mr. P. F. Banyard a nesting-box for suspension in trees.

## CARDIFF GARDENERS' ASSOCIATION.

THE nineteenth annual general meeting took place at the Sandringham Hotel on the 20th ult., when Mr. E. Mayne presided over a large attendance. Mr. Thomas Malpas, hon. treasurer, stated that he had a balance in hand of 14s. 6d. The hon. secretary (Mr. John Julian) gave his report upon the work of the year. The annual summer and autumn outings were dealt with, and special mention made of the several lecturers and prize donors. A number of new members were enrolled during the year, and there had been record attendance. The report was unanimously adopted. J. J. Neale, Esq. (Orchid enthusiast), Lynwood, Penarth, was elected president. The whole of the vice-presidents were re-elected. The retiring president was elected an hon. member. The chairman, Mr. E. Mayne; vice-chairman, Mr. C. E. Collier; hon. treasurer, Mr. T. Malpas; hon. secretary, Mr. John Julian; and members of committees were all re-elected. Votes of thanks were passed to all the retiring officials, and to the London Horticultural Press and local Press.

## LATE NOTES.

**The Midland Daffodil Society's show.**—A committee meeting of the above society was held recently to consider the date of our exhibition, and it was unanimously decided to adhere to the original date stated in the schedule, namely, Wednesday and Thursday, April 25 and 26, and if you would insert this information in your next issue it would greatly benefit numbers of your readers, as you are no doubt aware we get probably the finest exhibition of its kind in the kingdom, which is visited by specialists from all parts.—ROBERT SYDENHAM.

**Horticultural College, Swanley.** This college is situated 17½ miles from London, and 1½ miles from Swanley Junction Station, on the South Eastern and Chatham Railway. It stands in forty-three acres of freehold land, allotted to flower, kitchen, market gardens, fruit plantation, playing fields, also conservatories and glasshouses for market work. Lecture rooms and laboratories form part of the college, while adjoining are a workshop, farm buildings, apiary, dairy, poultry runs, &c. It aims at giving a thorough training to fit women to become market growers, gardeners in private places, or to enable them to manage their own property. The full horticultural course lasts for two years, and consists of practical work out of doors and under glass, with lectures on scientific principles. Diplomas or certificates are awarded to students who have qualified. Courses are especially arranged for intending colonists.

**Proposed new park for Birmingham.**—Birmingham, notoriously badly off for open spaces, is proposing to acquire another public park. An enquiry was held recently into an application to borrow £28,500 for the purpose of purchasing the Warley Hall estate. The city has an area of 12,639 acres, but only 326 acres are represented by open spaces and playgrounds,

which is a much smaller area than any other town of a comparable size in the kingdom. The total cost of the new site will be £43,000, but a public committee, with Mr. A. M. Chance at its head, has collected £14,800, so that there is only the £28,447 to be raised. The total land to be acquired is 134 acres, which are estimated to be worth £70,000.

**Orchid grower's lawsuit.**—It is reported that Mr. Leeman, West Bank House, Heaton Mersey, Manchester, has successfully sued a firm of Orchid growers in Belgium for £1,200 on account of Orchids supplied by them which when they flowered were not true to the vendors' description. The Brussels firm is stated to have pleaded that if every customer expected his purchases would exactly resemble the coloured plates of the catalogue, it would be impossible to do business. The defendants were ordered to refund the money paid for the Orchids and to pay costs.

**Visitors to Kew during 1905.**—The number of persons who visited the Royal Botanic Gardens during the year 1905 was 1,824,319. That for 1904 was 1,579,666. The average for 1895—1904 was 1,334,549. The total number on Sundays was 553,631, and on weekdays 970,688. The maximum number on any one day was 61,183, on August 7, and the smallest, 70, on December 11. The largest monthly number was 345,998, during July, and the smallest, 22,938, during December.

## TRADE NOTES.

## THE MONARCH EARWIG CATCHER.

ANY grower of Dahlias knows well what a troublesome and destructive insect an earwig is, and how disappointing it is to go round his plants and find that some of his best flowers have been eaten by this pest. In consequence of the great loss of time in going to each plant and removing each flower-pot from the stake, dipping it into some liquid to destroy the insects congregated therein, and refilling the pot with moss or hay, Dahlias have been very much neglected; but by using this Patent Catcher the work which in the past has taken hours to do can now be done in a few minutes. Another advantage of the Catcher is that it does away with having to handle the insects in the least, as when the plants have been overhauled the Catcher can be plunged bodily into hot water, thus destroying the earwigs. The Earwig and Other Insect Catcher is to save time and trouble in catching earwigs and other insects that have located themselves in flower-pots or other receptacles placed upon the tops of Dahlia sticks as an enticement to such insects. By the use of this Catcher the necessity of using hay or moss in the flower-pot is obviated, as when the insects have located themselves and the flower-pot is disturbed they instantly drop into the Catcher, which has already been clasped round the stake under the flower-pot to receive them. The Catcher can then be instantly unclasped and used to another plant, and as soon as required can be bodily plunged into hot water or other destructive liquid, thereby doing the work in very much less time. Full particulars may be had from Mr. Robert Riley, 9, Little Underbank, Stockport.

## BARR'S HARDY PERENNIALS.

THE catalogue of hardy perennials, alpine, and aquatic for 1906, issued by Messrs. Barr and Sons, Covent Garden, W.C., is most useful. It contains lists and descriptions of novelties and rarities, as well as those of other well-known plants. There are some instructive lists of hardy plants for different purposes that amateurs will find invaluable, and there is a reference list of popular English names of hardy plants. This is a catalogue that will well repay perusal.

## CATALOGUES RECEIVED.

**Dahlias.**—J. Cheal and Sons, Lowfield Nurseries, Crawley; Cliburne, Altrincham.

**Herbaceous and Alpine Plants.**—Maurice Priebe, Christchurch, Hants; Jardins Correvon, Floraire, Chêne-Bourg, Geneva; J. Wood, Boston Spa, E.S.O., Yorks; George Bunyard and Co., Maidstone; James Backhouse and Son, Limited, York.

**Floral Flowers.**—W. Wallace and Co., Benetton Nursery, Johnstone, N.B.

**Hardy Trees, Shrubs, and Plants.**—W. A. Peterson, 108, La Salle Street, Chicago.

\* The portrait of Dr. Beale on page 206 of this issue is from a copyright photograph by Elliott and Fry, Piccadilly, W.

\* The Yearly Subscription to THE GARDEN is: Ireland, 6s. 6d.; Foreign, 8s. 9d.

# THE GARDEN.

No. 1796.—Vol. LXIX.

APRIL 21, 1906.

## THE CHINESE PRIMULA.

### HINTS ON CULTURE.

**P** RIMULAS are exceedingly useful winter-flowering plants, and are well adapted for conservatory or house decoration. To keep a succession of plants in flower from October onwards through the winter, seed should be sown early in April, May, and June. Sow in shallow pans filled with light loam, leaf-soil, and sand; pass the soil through a fine sieve, and fill the pans to within half-an-inch of the top. Have the pans well watered through a fine rose at least two hours before sowing. Sow evenly and thinly, and cover the seeds lightly with fine soil, gently press the surface, and leave quite level. Place the pans in a greenhouse, or close frame near the glass, in a temperature of 65° to 70° by day and 55° by night. Cover the pans with pieces of glass and paper until germination takes place, when the paper must be taken off, and the glass gradually removed as the plants advance in growth. When the plants are large enough, transfer them to 3-inch pots, using two parts good fibrous loam, one of leaf-soil, and some coarse sand. The pots should always be perfectly clean and well drained. After potting, the plants may be taken back into the same temperature for a time until they become established, when they can be placed in a pit or frame with a temperature of 55° to 60°.

As soon as the pots are filled with roots, pot on into those of 4 inches diameter, using the same kind of soil as before. Keep the plants lightly shaded from bright sun. For the final potting, pots 6 inches in diameter will be found quite large enough. The soil should consist of two parts good fibrous loam broken up rather roughly, one of leaf-soil, with a small quantity of mushroom manure, and enough coarse sand to keep the soil open. Pot moderately firm even to the collar of the plant. As soon as these pots are filled with roots, the plants may receive a watering with liquid cow manure once or twice a week. This can be done by collecting a small quantity of cow manure and placing it in a bag and plunging it in a tub of water.

As the days lengthen and become warmer more air should be admitted; during July and August, on warm nights only, the lights

of the frame may be removed altogether. Endeavour from the first to keep the plants as sturdy and robust as possible. Ventilation, watering, and shading are the principal points in their general management to ensure success. Towards the end of September some of the earliest plants may be removed to the greenhouse. Maintain a temperature there of 50° to 55° through the winter months. Primulas should never be subjected to a forcing temperature.

G. W. SMITH.

*Daneshfield Gardens, Marlow.*

## WINDOW GARDENING.

MANY people love flowers and would find endless pleasure in window gardening if they knew how easily, and, if necessary, cheaply it can be done. I think that no one who has seen the courts of many of the old colleges at Oxford and Cambridge in early summer, well furnished with window-boxes full of luxuriant plants, can deny that they add greatly to their beauty, and the background of old buildings sets off the pure tints of the flowers. There is not much variety in the contents of these window-boxes; usually Geraniums of different sorts, Calceolarias, and Paris Daisies, while Lobelia hangs down from them in long trails. In London and other large towns the window-boxes show the same lack of variety. In winter small shrubs, generally variegated, are used, and in summer the plants named above, and sometimes the sweet-scented Coronilla glauca or Mignonette. These arrangements are for decorative purposes only; they are not window gardens, but with a little thought an interesting garden may be had all the year round in this small compass.

To begin with, a box must be constructed to fit the window as deep and wide as the space will allow; some holes must be made in the bottom of it, and it should be painted leaf-green. In this 2 inches of crooks and a few lumps of charcoal must be placed to ensure good drainage. The compost or soil must be carefully prepared, and should consist, if possible, of two-thirds good fibrous yellow loam and one-third of well-rotted manure, with plenty of coarse silver sand mixed through it. Some people use leaf-mould instead of manure, but it is liable to become sour. If the window garden is started in September the soil need only be renewed once during the year, when it is replanted for the summer. Thinking out the arrangement of the window garden is a delightful occupation combined with the study of plant and bulb lists. There are so many things to choose from.

There are the little dwarf conifers and dwarf shrubs, either variegated, such as Golden and Silver Euonymus and its trailing variety radicans, Tree Ivies, Box, &c. Berried: Skimmias, Aucubas, and Pernettyas. Flowering: Dwarf Brooms, Kalmias, Andromedas, Heaths, Daphne Mezereum, &c. (Some of these will need a little peat in the soil.) Spring-flowering plants, such as Wallflowers (double and single), Forget-me-

nots, Alyssum, and white Arabis (double and single), Silene pendula compacta, Nemophila, double Daisies, Aubrietias, and the Cushion or alpine Phloxes. All these do best in sun. Others that will do in partial shade are Auriculas, Violas, Pansies, Primroses, Hart's-tongue Ferns, variegated Periwinkles, and the golden Creeping Jenny. Of bulbs the variety is almost embarrassing—Crocuses, Snowdrops, dwarf Irises, Tulips (double and single), Narcissus, blue Scillas and Chionodoxas, Hyacinths, &c. By consulting a good catalogue the colours, habit of growth, &c., of these plants can be ascertained, and they can be arranged according to individual taste.

If the air is pure and there is plenty of sun, the following arrangement would provide interest for months: Two little variegated Tree Ivies, and two little bushes of Cytisus praecox (a primrose-coloured early Broom) for the back of the little garden near the window; between these and in front little clumps of Snowdrops and Iris reticulata (a dwarf violet-coloured and scented flower), and some Crocuses. Along the front some well-established plants of a good dark-coloured Aubrietia, and between these clumps of Eranthis hyemalis, the little Winter Aconite. Behind the Aubrietia as many bulbs of Tulip Proserpine as can be comfortably got in among the other things must be placed. The Winter Aconites will open their golden flowers in January; soon after the Snowdrops will be in bloom. In February Iris reticulata and Crocuses will flower, and by that time there will be a few blossoms open on the Aubrietia, which will continue in bloom many weeks, gradually hanging over the edge of the window-box; the primrose Broom, and the rose-coloured Tulips, when they open later, will contrast beautifully with its varied purple shades. The alpine Phloxes are some of the most beautiful and satisfactory plants for the sunny window-box. The best are Vivid (brilliant rose), lilacina (pale mauve), and a pure white one.

For a more shady window an equally interesting planting may be made: Hart's-tongue Ferns, Skimmias, Primroses, and blue and white Auriculas; Violas and Creeping Jenny for the edge, and with these a few Daffodils and the common wild Bluebell may be associated.

In May the summer planting of the window-box may be thought out, and it can be done when all danger of frost and cutting winds is past. The wealth of material to choose from is greater than before, and scent can be associated with colour. Where economy is not necessary, good plants already in flower may be purchased. For a more modest window garden little plants of many annuals, &c., which have a long period of blooming can be got quite cheaply. The best are Godetias, Zinnias, dwarf Tropaeolums and Antirrhinums, Cornflowers, Dianthus, Stocks and Balsams, and the dark-leaved Sweet William. These will soon make a great display, and a few seeds of Mignonette may be sown half-an-inch below the surface and the seedlings carefully thinned when they appear.

Such plants as Geraniums, Calceolarias, Verbenas, Heliotropes, fine-leaved Paris Daisies, Lobelias, yellow Musk, Fuchsias, &c., do best in sunny window gardens. The following is a

pretty arrangement: White Paris Daisies at the back, then dark Heliotrope Lord Roberts, and the beautiful Ivy-leaved Geranium Mme. Crousse for the front, to hang over the edge of the box. Among the other plants a few Spanish Irises that have been started in pots may be placed. For a partially-shaded window-box nothing is better than blue and white flowers—dwarf white Petunias, dwarf Delphinium Blue Butterfly, with Lobelias and Campanula isophylla alba (a trailing variety) to fall over the front, and one or two Salvia patens or Paris Daisies to break the line of height would be very satisfactory. Begonias do exceedingly well in cool and partly-shaded window-boxes, and may be associated with Ferns and Violas. Carnations are most satisfactory plants for the window garden, as they do not mind a little frost in the air. A few early-sown Marguerite Carnations planted with them will bloom until frost comes.

Where it can be managed, it adds greatly to the effect of the window garden to have climbing plants up the sides of the window, and perhaps carried over it on a light wooden arrangement. Such annuals as Nasturtiums, Convolvulus major, and Tropaeolum canariense can be grown from the window-box. Where there is a balcony and other boxes or tubs can be used, Wistaria, Ampelopsis Veitchii, and Ivies are suitable, and even Sweet Peas may be grown. Having planted the window garden it will require constant attention—real gardening—to keep it in the best condition. In hot, dry weather it must be watered morning and evening when the sun is off it, and occasionally a small quantity of some inodorous chemical manure may be dissolved in the water, which should be rain-water if possible. All dead leaves and over-blown flowers should be removed, and where plants are inclined to grow straggling they should be pinched back. The soil must be lightly stirred now and then. Judgment must be used in watering; the soil must not be kept sodden or dust-dry. It is better to water thoroughly at regular intervals than to give little and often.

Some people like to grow a particular class of plants, such as Ferns, Irises, Sedums, alpines, hardy Cactuses, &c., and this is very interesting. A collection of our smaller native Ferns may be grown in a shady window-box. Great success has been attained with dwarf Irises, such as I. Vartani, reticulata, bakeriana, Histro, histrioides, and Danfordiae. The dwarf kinds of Narcissus might be associated with them, such as Narcissus minimus, N. minor, N. Macleayi diomedes minor, &c. For Sedums and alpines pieces of stone should be half-buried in the soil, and the little bed raised in the centre to give perfect drainage and to show off the little plants. An inch or 2 inches of stone clippings over the soil also helps to prevent evaporation. Houseleeks, Stonecrops, alpine Pinks, &c., would do well in such a position.

In a very hot, sheltered position the hardy Cactuses might be tried; Opuntia Rafinesquii is the most likely to do well. This and some of the Irises, &c., may be covered with a glass in winter. (Mrs.) E. LLOYD EDWARDS.

*Bryn Oerog, near Llangollen.*

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

April 25—Midland Daffodil Show (two days), and National Auricula and Primula Society's (Midland Section) Show (two days).

May 5.—Special Show of Seedling Auriculas, Birmingham Botanic Gardens.

**Kent and Sussex Daffodil and Spring Flower Society.**—The first annual show will be held on Friday, the 20th inst., at the Great Hall, Tunbridge Wells. The Marchioness Camden has kindly consented to open the show, and, besides the competitive exhibits, the leading firms who specialise in Daffodils and

spring flowers will be represented. Mr. F. Herbert Chapman, 101, High Street, Rye, Sussex, is the hon. secretary.

**Recent plant portraits.**—The *Botanical Magazine* for April contains portraits of *Nepenthes phyllamphora*, native of Eastern Tropical Asia, a plant with rather small pitchers, and of no special beauty. *Gladiolus carmineus*.—Native of South Africa; a very bright and ornamental species with rose-coloured flowers. *Ligustrum stronglyphyllum*.—Native of China. This is one of the many ornamental flowering shrubs discovered in China by Dr. A. Henry, and afterwards by Mr. E. H. Wilson, who sent it to Messrs. Veitch. It produces large, terminal bunches of semi-double white flowers. *Cypripedium tibeticum*.—Native of Eastern Tibet and Western China. This is a handsome *Cypripedium* allied to *C. macrantha*, and probably will, like that variety, be almost if not quite hardy. *Calliopsis Volkensii*.—Native of German East Africa. This is a curious herbaceous Aroid with pure white spathes, and requiring the temperature of a stove.—W. E. GUMBLERON.

**Ferns growing in bottles.**—From the Royal Seed Establishment, Southampton, Messrs. Toogood and Sons kindly sent the photograph from which the accompanying illustration was made, together with the following note: "We think the enclosed bottle and Fern sufficiently curious to interest your readers. Mr. Fletcher of Bonnicote, Hythe, made an edging for a border by inserting in the soil twenty-four empty bottles, neck downwards, rather



FERN FOUND GROWING IN BOTTLE BURIED IN THE SOIL.

more than half the bottle being covered in to keep it firmly in place. Each of these bottles has become filled with Ferns, as the specimen sent to you, though no Ferns have grown in this garden within living memory. The Fern spores must have been situated quite 9 inches under the surface-soil."

**Royal Horticultural Society—Trial of Cannas.**—The council of the Royal Horticultural Society has decided to hold a trial of Cannas at Wisley this year and next. Roots should be sent addressed to Superintendent, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey. Foreign horticultural papers please copy.

**Barr's Daffodils.**—The Daffodil nurseries of Messrs. Barr and Sons at Surbiton are now in the height of their beauty, and are well worth a visit. There are immense numbers of Daffodils and other spring flowers in bloom, making a show unique in the neighbourhood of London. The flowers, too, will well repay close inspection, for among them are some of the very finest new sorts.

**Value of Rhubarb leaves.**—In your issue of April 7, 1906, under the heading "A New 'Vegetable'" (in "Notes of the Week," page 194), there is a recommendation by E. H., Planegg, Bavaria, to use the green leaf of the Rhubarb as a substitute for Spinach. I beg to enclose a cutting from *Farm and Home* of March 31, 1906, which is a warning against this use of the leaf. It would be interesting to know if others have used it, with or without injurious effects, and what we are to believe.—E. KATZ SPENCER. "It is not so well known as it ought to be that in certain conditions Rhubarb is a poisonous plant, the leaves and also the stems being rich in oxalic acid. In an ignorant recipe in some cookery book or journal it is stated that the leaves of Rhubarb might be chopped up and used as Spinach, and it led to the poisoning of at least one family. The result of cooking and eating the stems is injurious to some, and they should always be used in moderation. Garden Rhubarb is anything but an invariably harmless article of diet, even for persons who are not gouty, or with lime in their system. Its free use at table will now and again provoke in susceptible subjects, whether children or adults, congestion of the kidneys, passage of bloody urine, nettle rash, colic of the bowels, feverishness, and a general aching of the limbs."

**Winter-flowering Carnation Society.**—At a meeting recently held of the committee appointed to make the preliminary arrangements for the formation of a Winter-flowering Carnation Society, correspondence that had passed between Mr. Henwood, hon. secretary of the National Carnation and Picotee Society, and Mr. Hayward Mathias, hon. secretary of the Winter-flowering Carnation Society, was read. It appeared from the correspondence that Mr. Mathias had, prior to the formation of the Winter-flowering Carnation Society, definitely offered to give way to the National Carnation and Picotee Society in the event of that society wishing to deal with Winter Carnations also. The matter of taking up Winter-flowering Carnations was brought by Mr. Henwood before his committee, and on January 5 Mr. Mathias was informed "that it was the unanimous opinion of the members (of the National Carnation and Picotee Society) that the society was not in a position to do so." To make the matter perfectly clear Mr. Mathias again wrote to Mr. Henwood on January 12, 1906, to say that now he had received an official refusal he felt himself at liberty to bring the desirability of a society in the interests of Winter-flowering Carnations before those who desired to see this section recognised. The committee decided that the first general meeting of the society should be held at Anderton's Hotel, Fleet Street, London, on May 29 (the opening day of the Temple Show) at 8 p.m., to be preceded by dinner at 7 p.m.



**Androsace Lagerri.**—Few plants form such a charming picture as a well-grown pan of the Pyrenean form of *Androsace carnea* in the early months of the year. Although considered by some authorities to be only a form of the latter species, it possesses marked differences which entitle it to specific rank. One of the earliest of its family to flower, it forms close tufts of bright green foliage, from which spring stems 2 inches or 3 inches long, bearing umbels of rose-coloured flowers. These often appear at the beginning of March when given the shelter of a cold house, and become more profuse in the following weeks, the tufts becoming covered with flowers, and producing a most charming effect. It is easily grown in a mixture of sandy peat and grit, but in the neighbourhood of towns at low elevations it requires the protection of a pane of glass when grown outside during the winter months. On the rock garden an open situation should be chosen for it in full sun, and plenty of broken sandstone or granite should be mixed with the soil. It is perfectly hardy as regards frost, its chief enemy being the excessive moisture of our winters. The essential conditions for pot culture are plenty of drainage and the above compost, with liberal supplies of moisture when in full growth. It is also advisable to keep the pans plunged in ashes during the time when not in the alpine house. *A. Lagerri* forms large patches of turf on the Pyrenees at an elevation of 8,000 feet to 7,000 feet.—W. I.

## THE ROSE GARDEN.

### STANDARD ROSES.

**M**UCH discussion has taken place during the last six months as to the best dwarf Roses, mildew-resisting Roses, &c., but I have not so far seen any remarks about the varieties which do best as standards. Up here *La France* is far and away the most successful. As a dwarf this Rose will not open properly; in autumn the flowers damp off. This happens whether the plants are manured or not, and whether planted on a raised bed or on ground level; but as a standard it succeeds unusually well, the flowers being equal in size and form to any I have seen at the Royal Horticultural Society's and National Rose Society's shows, and frequently surpassing them in depth of colour (I would readily compete in the class for twelve Hybrid Tea Roses of one colour, only the distance is too great for an amateur to arrange the transit successfully). I have twenty-four of the standard *La France* in a sheltered and rather shaded part of the garden, but wish to plant six standards at the edge of a lawn which has a large herbaceous border at the other side of the path. As, on coming up to the border, the standards will be seen against the colour of the flowers, *La France* is not suitable, its colour not harmonising well with pink Phloxes, Sunflowers, &c. (it looks best against a purely green background).

I should be very glad, therefore, and think it would prove generally interesting, if opinions were given as to the varieties which have been found most successful as standards. I have been told that Duke of Edinburgh and Bouquet d'Or do well. Personally I want varieties that will make large heads and produce decorative, not exhibition flowers, for the situation I need them for is rather exposed, and we have on the average at least one windy day a week. Therefore no slowly-opening long-lasting Rose would be of any use; quickly-opening short-lived sorts are clearly the fittest for a windy climate, and I thought *Mme. Abel Chatenay*, *Mme. Ravary*, *Antoine Rivoire*, with *Marquis of Salisbury* for a red Rose, would be suitable if these grow well as standards. But the whole subject of the best standard Roses would be interesting, I feel sure, to many.

Chippchase, Northumberland.

M. T.

## WALL GARDENING.

REFERRING to the interesting prize article by Mr. W. G. Haworth in your issue of the 10th ult., on "Wall Gardening," I cannot help feeling that two points are open to discussion and rather misleading to anyone thinking of building and planting a dry wall. I quite appreciate the fact that the writer of the article could not, in the space at his disposal, give anything like a complete answer to the questions set.

In filling up the space behind the wall in course of being built, I consider that it is extremely dangerous to add manure, although I suppose very old and decayed manure is intended to be used. Manure in any form has a tendency to make many plants become gross, and in consequence give a poorer display of bloom, and would very soon prove the death of *Campanula Allionii*, to give only one instance, and others which require the very poorest of soils and exposure to the sun. This leads me on to the second point, where I am not in agreement with Mr. Haworth, who says, "East is the best aspect, north is fairly good, while west is the worst." Now I think that anyone wishing to build a wall garden, and having a west or south aspect as the only possible one at his disposal, would be discouraged from starting after reading this article. I do not, for one moment, mean that an east aspect is bad, for there are a very large number of plants that would be better there; but on the other hand, there are many sun-loving things, such as *Campanula garganica*, *petraea*, *excisa*, and others, *Lithospermum graminifolium*, and several of the Sedums that would thrive better in a sunny position than in one facing east.

Good as this article is in many respects, and bearing evidence of having been written by one who has had practical experience in this interesting branch of gardening, I feel that I ought to take exception to the points mentioned, as the remarks I have made are not from my own experience alone, but from that of such authorities as Mr. W. Robinson and Miss Jekyll, whose admirable book on "Wall and Water Gardening," I should like to add, is one which all should have who are interested in this branch of gardening.

Cheshire.

F. B.

## THE KITCHEN GARDEN.

### MERCURY OR PERENNIAL SPINACH.

**I**N many parts of the country the above plant is little known, yet few are cultivated more easily. In Lincolnshire this plant is found in most gardens grown under the names of Mercury and Lincolnshire Spinach, but in the adjoining counties it is called Good King Henry (*Chenopodium Bonus Henricus*). The plants are usually propagated at this season (March or early April). It may also be raised from seed sown thinly in the spring, as it is a quick grower, the seedlings being planted out in dull weather in the early autumn in rich land in rows 18 inches apart, half that distance between the plants. Grown thus there will be good cutting material the next spring. It is propagated by division early, and in well-manured, deeply-dug land. Many grow the Mercury for years in one place, cutting it hard each year; but splendid growths follow annual culture—that is, dividing a portion of the bed



A BEAUTIFUL ALPINE PLANT (*ANDROSACE LAGGERI*).

yearly and destroying the oldest. I prefer forming new beds from roots, and by so doing strong shoots follow. The tops or leaf-growths are the edible portion, and when cooked make a delicious vegetable, by many preferred to ordinary Spinach. G. WYTHES.

### CAULIFLOWER AND BROCCOLI.

[In reply to "A Beginner."]

WHAT is the earliest date on which I could cut Cauliflower, from seed sown now? When should I sow Broccoli for use in March and April?

Your question is probably interesting to many. There is no better time to sow the Cauliflower than late in March or early in April. You do not say if you have any glass; the latter is of great assistance in raising an early crop. Cauliflowers sown under glass early in the year may be had fit for use in May if a very early variety is sown, such as Snowball, Veitch's Forcing, Sutton's First Crop, or Carter's Defiance Forcing. All these are reliable. The question that most concerns you now is present sowing, and even at this date glass in the shape of a cold frame or shelter of any kind for a few weeks at the start would be valuable. For instance, Cauliflower seed sown now, thinly in boxes under glass, pricked out in frames or boxes on a warm bed, would give you nice heads—small, certainly, but large enough for table—in three months from sowing. The plant is a quick grower, if given liberal treatment in the shape of food and moisture. A rich root-run is essential to success with forced plants. In many gardens, where glass is plentiful, Cauliflowers are grown in pots and frames from start to finish. In others, where only ordinary open-ground treatment can be given, seed is sown in September on a sheltered border, the seedlings are planted out in March, and turn in for use in May and June, but in severe winters there are many losses.

Seed sown thinly now on a south border will give good seedlings to plant out early in May. A well-manured border should be provided. The early sorts noted above will give heads for the table in June, but for succession crops we would advise a larger variety; these early forms do not stand heat and drought. Such as the Pearl Dwarf, Erfurt Purity, and Magnum Bonum sown now will give splendid heads for July and August supplies. We only advise the small sorts for first crop, either under glass or in the open. Many gardeners sow under glass, prick off the seedlings as described, and when the plants have made four strong leaves they are planted out on a south border between the rows of early Peas. The Pea sticks shelter them from the cold winds. The later sorts for July use are planted out on open quarters or between the rows of main crop



Peas. When glass was not available we have planted the early ones in deep drills in April (these plants being obtained from seed sown under glass), covering the drills at night for a short time. Allow 15 inches to 18 inches between the early plants, and in frames 12 inches is sufficient. To get Cauliflowers at a season when other good vegetables are scarce, in May or June, much may be done by cold frame or hand-glass shelter at the start. The seed may be raised in heat, but it must not be left there when well above the soil; avoid thick sowing. If a frame can be used for the seedlings where a little warmth can be given the plants, a great saving of time follows.

Broccoli for use in March or April should be sown the previous April if the soil is heavy or the garden much exposed, but in a warm soil and in southern counties early May sowings will give heads at the time desired. To get the best results there must be a strong plant to battle against our variable winters. It should be remembered that the Broccoli is not quite hardy. A weak plant, or one that has been crowded in the seed-bed or planted late, frequently fails. There is no lack of good varieties; such as the Early Penzance, Veitch's Spring White, Model, and Sutton's Protecting are all reliable for cutting in March and April. The seed should be sown thinly on an open quarter, and the seedlings planted in their permanent quarters early—that is, as soon as the plants are large enough to handle. Many failures occur through leaving the seedlings too long in the seed-bed. Plant early, and so save much watering and secure a sturdy growth.

#### CAULIFLOWER HER MAJESTY.

This Cauliflower, which was sent out by Messrs. Toogood and Sons, Southampton, is a very distinct variety, having a short thick stem, so that the plant is very dwarf. The leaves are thick and rather rounded; and the head, which is extra large, is very white and firm, and keeps for an unusually long time. As the plant is hardy and early, and from the nature of its growth takes up unusually little space, it is likely to become the leading market variety in cultivation.

#### KALE SUTTON'S FAVOURITE.

Those not having grown this variety of Kale should certainly give it a trial. It not only produces a capital supply of sprouts both early and late, but the flavour when properly cooked is excellent. It is something like the Asparagus Kale type, the young stems and leaves being exceptionally tender. Grown by the side of Scotch and Cottagers Kale it is the last to run to flower, producing tender sprouts when the other two have been over for some time.

Wrotham.

H. MARKHAM.

#### ASPARAGUS KALE.

This is one of the most useful vegetables we have. Coming into use in April and May, when vegetables are usually very scarce, it is a wonder that it is not more widely grown. The seed must not be sown too early, or the plants bolt in autumn and are useless. In the North the end of April is the best time, while further South a fortnight or so later should do. When transplanting treat like Broccoli, giving soil in good heart, but trodden quite firm. It seldom suffers from frost.

Preston, Linlithgow.

C. BLAIR.

#### A VALUABLE NEW SUMMER LETTUCE.

(LORD KITCHENER.)

I FIRST saw this splendid summer Lettuce exhibited at one of the meetings of the Royal Horticultural Society by Messrs. Dickson and Robinson of Manchester, who introduced it last season, and it certainly well deserved the award of merit given it as a new summer Lettuce. But, as every grower knows only too well, to judge any new thing it is necessary to see it growing

with other sorts, and, what is even more important, to test it for quality. In this latter respect the new Lord Kitchener will hold its own as being one of the best. It is a Cabbage form with very few outside leaves, and, what makes it so valuable in the summer months in a hot or dry soil, it is a long time before showing any tendency to bolt. It forms a medium-sized heart, and, unlike some Cabbage forms, it does not decay in the centre in changeable weather. The leaves when fully matured are a pale green, very crisp, and the plant grows very compact. If sown two or three times from March to June, there will be a succession when Lettuce is largely required for salad purposes. If grown in good land it makes a quick growth, so that it is more valuable for March sowings in the open ground. G. W.

#### VALUE OF SORREL IN SPRING.

At one time the large market gardens near the metropolis grew quantities of Sorrel, and there was a large demand for the young green leaves; but I do not think this vegetable is now grown so much. In private gardens it is even less in favour, but it is well worth growing either as a salad or vegetable. On the Continent the leaves of the larger Sorrels are used in the spring in the same way as Spinach, and I think we might with advantage grow it for this purpose. The flavour may not suit all tastes, but it is well to have as much variety as possible, and much of the acidity may be done away with by careful cooking. For salad the young tender leaves of Sorrel are superior to Chicory. As the plant is quite hardy it may be grown at a small cost. The Belleville, or Oseille de Belleville of the French, when given good culture has a large leaf and is less acid. The common Mountain Sorrel is so well known that I need not describe it. When cultivated this is a useful salad plant. I have seen the smaller variety called Montanus used as an edging to vegetable quarters; this in a young state, though small, is a useful adjunct to the salad bowl. There is a round-leaved variety well worth

growing known as Roman Sorrel; it is a hardy perennial and rather acid. Its only value is as a salad in a young state; it is much liked and largely used on the Continent. If Sorrel is given good culture, divided yearly, the seed-stems removed as they show, it gives a good return, and at a time of year when it is most welcome. March or April is a good time in which to divide the plant. I do not advise sowing seed unless to get a start, as I find seedlings are more inclined to run to seed than divided plants. Sorrel, like other vegetables, degenerates if grown many years in the same soil, so that it is well to divide annually, to select the best plants for replanting, and if Sorrel is liked to make two quarters—one for spring on a warm border, and one for summer on a north or cool site.

G. WYTHES.

#### FLAVOUR IN BEETROOT.

COLOUR is often considered the principal point in a good Beetroot, and certainly it is of value. On the other hand, it does not follow that the best-coloured roots have the best flavour. Many prefer roots that may be termed blood red or even a blackish red, but these roots, though most shapely, are not superior to those with green foliage and less symmetrical roots. After many years' experience of these roots, and with regard to flavour alone, I have come to the conclusion that the variety called the Cheltenham Green Top is one of the best. This root has bright red flesh, green foliage, and the quality is excellent. Many persons when first eating this variety exclaim, "What delicious Beet!" This variety has been grown largely in the market gardens near Cheltenham for quite a quarter of a century, and is still the favourite root there. It is by no means a handsome root; in fact, it grows coarse in rich land. On the other hand, given the proper culture, it is of splendid quality, and well worth more attention for private gardens. It is one of the best to keep, but it is on account of its quality that I advocate its culture.

G. W. S.



CAULIFLOWER HER MAJESTY.

## DAFFODIL NOTES.

## ORIGIN OF THE WHITE TRUMPET DAFFODILS.

It is a year ago, Mr. Editor, since I offered the opinion that the origin of our old white trumpet Daffodils—albicans, cerneus, and tortuosus—was from the crossings of *N. moschatos*, *N. variformis*, and *N. pallidus præcox*, which were in cultivation in John Parkinson's day, and may have been grown in Britain long after his time. Seeing we have no record of the three white trumpet Daffodils before mentioned, and also that we have a record of three Daffodils that may have given to us these three fine varieties, more prized than now owing to the larger white kinds raised in the fifties and sixties of the last century, and those raised in this century and the end of last century, I cannot help thinking that some worker may have produced these, and to them we owe the very fine things now in our gardens. I send you a few flowers of *pallidus præcox*, from the mid-region of the Pyrenees up as far as the mountains above Luchian. The species is to be found with flowers about the size of those of *N. nanus*, and from the mid-region all along the north side of Spain from Saint Jean de Luz to the border of Galicia in Spain. All of these are nearly pure white. I was reminded of this from a bunch of flowers sent to me by Mr. E. Walpole from his garden at Mount Usher in Ireland, the history of which Mr. Walpole gives. I sent some of my collected bulbs to the late Mr. Burbidge on my return from one of my four journeys in Spain, and he sent them to Mount Usher. There they have flourished in grass near a stream ever since, but with little increase. In my travels in Spain and the Pyrenees I came to the conclusion that wild Daffodils increased from seed, not by increase of the bulbs, unless in soft soil near rocks, where one may find the bulbs in clumps. The Mount Usher box contained very large flowers of *N. cyclamineus*, planted in damp soil in grass at the same time, and that is long ago, as my last tour in Spain bulb-hunting was in 1894. This latter remark about naturalising *N. cyclamineus* ten or twelve years ago is fully confirmed, and your correspondent of these days may accept this as an answer to his sneers at my recommendation in an article at the time. I knew what I advanced; he did not know, but wished, as on other matters regarding Daffodils, to make others believe—and actually succeeded in making the late Rev. Wolley-Dod believe—that *N. maximus* was an Italian bulb. I got the Rev. Wolley-Dod, however, to disprove this, by his finding it in France from my information.

PETER BARR, V.M.H.

**YELLOW STRIPE DISEASE.**—Mr. A. R. Goodwin's letter with regard to the mysterious yellow stripe disease in Narcissus interested me much. In this garden, thanks chiefly to the generous kindness of friends and neighbours, we grow about 100 different sorts. The soil is sandy, with water 5 feet or 6 feet below the surface, and most bulbs thrive uncommonly well (in fact, I was honoured once with a request from Kew Gardens through your paper for some bulbs of *Galanthus latifolius*), but the above-mentioned disease is present. Hard by splendidly healthy, broad, strap-like foliage of P. R. Barr is a colony of M. J. Berkeley, the leaves of which are nearly all affected. The worst offender is C. J. Backhouse. With the exception of this last named, however, the disease does not seem to attack the less robust more than the tenderer sorts, e.g., like Mr. Goodwin I find that princeps is a victim. I dug up a few of the worst cases to see whether there was anything the matter with the bulbs, but to all outward appearance they were perfectly sound.

Clophill Rectory, Amphill. ROLLO MYER.

It is fortunate this season that the great majority of varieties do not "take the winds of March," and I think that most people are coming to the conclusion that if the season is to be extended it

must be by means of varieties opening in May, such as we now possess in Mrs. Camm, Dorothy Wemyss, Polestar, and others. Here the Tenby Daffodil is always good and constant, but I am careful to allow it to grow into large clumps as frequent lifting appears to lessen its floriferousness.

*Golden Spur* sadly failed last year, and I find that even in the rock garden it will not remain in good health for any length of time unless given a change of position every two years. Last season I secured a piece of light loamy pasture land for my Daffodil collection, and all my stock of this variety was lifted and replanted on it, with results that are already proving most beneficial; the foliage now being of that rich blue-green which betokens health. Among all the Daffodils which, in this part of the Midlands, open in March, none excels this same Golden Spur for the decoration of the house. There is a vase of it now on my table arranged with a few blossoming sprigs of the purple-leaved Plum (*Prunus cerasifera atropurpurea*), whose young bronzy leafage serves to set off its elegant and graceful flowers of rich deep gold.

*Alert*. It will be remembered, was figured in Vol. LXVIII of THE GARDEN, page 253, and is a chance seedling from the Tenby Daffodil, raised by my friend, Mr. J. Duncan Pearson. In all ways it is a beautiful and a symmetrical flower, and seen side by side with its parent, it is obviously of larger size, greater substance, and a slightly lighter tone of colour. The large-rimmed trumpet is very near Tenby colouring, and the perianth is just a shade lighter; the plant apparently possesses an exceedingly robust constitution. With me it began to flower on March 19, and as it has the same sturdy habit of its parent the rough weather has affected it but little.

*Auric* (Pearson) is a distinct little flower, at least a size larger with me than Tenby, but quite as well proportioned. The trumpet is of the same shape as the latter, but slightly more fluted, and more frilled and gashed at the brim; the perianth segments are broader and not so acute. The whole flower is a rich full glistening yellow and of good substance, the segments being rather paler than the trumpet. The plant is extremely floriferous, and a meritorious addition to the March-flowering sorts.

## THE NARCISSUS COMMITTEE.

Formerly this body used to hold its first meeting early in March, but this fixture always proved abortive from the fact that even in the earliest of seasons few flowers are out until the middle of the month. This year, therefore, the committee's first sitting was relegated to March 20, a change that appeared to be generally approved.

Among a number of exhibits on this date, unquestionably the most interesting came from Mr. Charles Dawson, of Gulval, Penzance; in fact, this exhibit contained some of the finest and most remarkable seedlings that I have noticed. In my last notes, which were written before seeing this exhibit, I mentioned the fact that the advent of some really good cyclamineus hybrids was not improbable in the near future. It was, therefore, with great pleasure that I saw included in Mr. Dawson's exhibit one flower in which all the cyclamineus traits were fully retained, but in a considerably magnified form.

*Cyclet*, which is the name of this dainty variety, has lost nothing of the charm of the little Portuguese Narcissus, nor any of its graceful habit. The straight narrow trumpet attains a length of almost 1½ inches, and is a rich, full soft yellow, deeper than in the parent. The segments are of true cyclamineus form, but, like the trumpet, larger in size, and a shade paler in colour. Let us hope that this beautiful plant will have more vigour than the majority of hybrids containing a high percentage of cyclamineus blood. I ought to add that this one was raised by Mr. Dawson, who is certainly to be congratulated upon his success in obtaining such a good seedling from a species which has not proved nearly so amenable to the hybridist as

have most other wild species and varieties of Narcissus. In this same stand another seedling, which it would well have been worth going a long way to see, was

*Goldseeker*, a flower of rare beauty and perfect form. Imagine a glorified form of the Tenby Daffodil with an extremely fine recurving rim and the whole flower stained with that intense rich, deep gold seen in the little Santa Maria, which was one of Mr. Peter Barr's most cherished finds in Spain, and you will have as good a likeness of this flower as my pen will convey. Goldseeker is, indeed, a cross between Tenby and Santa Maria, and to a large extent the influence of each parent is perceptible. The well-proportioned trumpet, crisped and reflexed, is 1½ inches across at the mouth and of exactly Tenby shape, while in the perianth may be seen the influence of Santa Maria by the tendency of its segments to twist slightly. The whole flower is of such splendid substance and so entirely distinct from anything now in cultivation that it was not surprising to find that it attracted considerable attention and won encomiums from all who saw it. Other notable flowers in this exhibit were

*Canary*, a triandrus hybrid of the foremost rank, best classed as belonging to the semi-Johnstoni type; remarkable in every way and perfectly distinct. The long, narrow, open corona is 1½ inches in length, and the pointed perianth segments, which overlap slightly at the base, are also of the same length. The flower is finely proportioned, and of that exquisite glistening texture so characteristic of all the Johnstoni hybrids; the colour, a soft translucent lemon-yellow, reminding one much (in colour only) of Bennett-Poë, with which Mr. A. Kingsmill gained an award of merit last season.

*Averil* is another beautiful triandrus seedling, with a straight trumpet 1½ inches long, barely 1 inch across at the mouth, and slightly fluted and crimped at the apex. The pointed white perianth is a soft ivory white, and the trumpet a delicate pale lemon tint. By no means a large flower, but stately and most refined.

*Vivandière*—A small poetious form of distinct character. The flower is only 2½ inches across, and the predominating feature is the wide flattened cup, 1½ inches across. The deepest part of this is citron, merging into pale yellow, and surrounded with a deep band of glowing orange. The small almond-shaped petals are of purest white, and bend slightly back from the cup, considerably enhancing the beauty of the flower. Vivandière may well be taken as typical of the newer poetious forms, of which Ethelbert and Aome are also perfect examples.

*Gitana*.—A noble incomparabilis, 3½ inches in width. The wide overlapping perianth segments are of soft creamy yellow, and the large spreading, crinkled, citron-orange cup has a deep rim of orange-red. A very fine, bold flower derived from incomparabilis Princess Mary.

*Marshall*.—A Leeds form, with milk white, drooping, and graceful overlapping petals. The long glowing fiery red cup is one of the deepest colours yet attained.

*Mirabel* is a flower of unusual form, perhaps a cross between a Jonquil and *N. triandrus*. The whole flower is of drooping habit and of true Jonquil colouring, an exquisite shade of full yellow. The trumpet is long and straight, and the divisions of the perianth pointed and overlapping. A flower of much charm, but one that would require an elevated position in the rock garden to be fully appreciated, owing to its very drooping habit.

*Catrina* is a magnificent Burbidgei form, 3 inches across, of great elegance and refinement. This has soft creamy yellow recurving perianth segments, pointed and overlapping, while the cup is a vivid shade of orange-red.

*Picaroon* is another poetious hybrid, perfect in colour and symmetry. The cup, which is remarkably round and even, is light orange tinted with citron in the deepest part and edged with a broad even band of deep orange-red. The



A MINIATURE LILAC IN POT.

glistening white overlapping petals are of splendid texture, and the whole flower is most beautifully formed, and  $2\frac{1}{2}$  inches wide.

*White Friar* is a telling flower of the giant Leeds class, with a large wide open chalice nearly 2 inches across, and frilled at the mouth. The broad pointed segments are silvery white, of largest size and splendid form; the chalice is a faint lemon tint merging into palest lemon white.

*Spindrift*.—This is a beautiful flower of triandrus origin. The pointed perianth segments are of a soft glistening white; the spreading fluted cup, when just expanded, is tinted with an exquisite shade of citron, passing to softest ivory with age. Habit, drooping, two flowers on a stem.

*Merganser*, a superb white Ajax, evidently of Weardale parentage; *Armored*, a fine early flower of the Engleheartii type, with a creamy white pointed perianth of great substance, and large, almost flat, crinkled eye edged apricot orange, very lasting; *Red Spider*, with starry white perianth and a cup of the Firebrand type; *Circlet*, notable for its remarkably broad round segments and its large flat orange-edged eye; and *Amulet*, with an enormous flat yellow and citron eye, were other notable flowers in a collection the like of which has never been seen before at so early a date. None of these varieties was submitted to the committee. Had this been done, one can say with certainty that several of them would have received awards.

Worcestershire.

A. R. GOODWIN.

## LILACS ALL THE YEAR ROUND.

To flower the Lilac at all seasons of the year is a very simple process. The photograph represents a retarded miniature Lilac. It was placed in  $80^{\circ}$  of heat by day and about  $55^{\circ}$  at night. It was in full flower in three weeks, and lasted

about five weeks. As soon as the plants arrive from the nursery they should be potted into  $4\frac{1}{2}$ -inch or 5-inch pots. We have had a supply of these since last October. For house decoration the Lilacs, with such plants as retarded Laburnums, Wisterias, Azaleas, and Spiræas, have few equals. The above was supplied by Mr. T. Jannoch of Dersingham, Norfolk, who introduced these miniature Lilacs, and I believe he is the only one who supplies them. He has just finished storing in cold chambers thousands of these beautiful Lilacs for summer and winter flowering. The retarding process of Lilacs is simple and easy: The main points are well-matured plants, carefully and well packed without their pots (only pot plants will do) in boxes in such a manner that no buds can be broken off, and stored away in cold chambers, the temperature of which is kept between  $26^{\circ}$  and  $28^{\circ}$  Fahr. These plants may then be flowered any time during the summer and autumn. Any Lilac, no matter what sort, will do for retarding. The prepared plants follow the retarded, and can be had in bloom well by the middle of December. The sorts that will force best and earliest are

Marie Legray and Charles X. The doubles should not be forced before Christmas, with the exception of Mme. Casimir Perier. D. ROBINSON.  
New Park Gardens, Brockenhurst.

## THE FLOWER GARDEN.

### THE HOOP PETTICOAT DAFFODIL. (NARCISSUS BULBOCODIUM.)

**M**EMBERS of the Corbularia section of the genus *Narcissus* are always interesting on account of the picturesque and unique character of their flowers. In the rush-like foliage they possess a graceful beauty of their own. Their dwarf stature is a recommendation for their use as pot plants, and it is under these conditions that they may be seen to the best advantage. The illustration shows a pan of one of the best for this kind of work, *N. Bulbocodium*, sometimes known as *Corbularia conspicua*. It has rich yellow flowers of good size, and they are freely produced. For this purpose the bulbs should be potted up in September, using a compost of gravelly loam, and then the pans should be plunged up to or above the rim in ashes for the winter in a sheltered place. As the flowers begin to push up the pans should be moved into the cold house, and the bulbs will come into flower in March. Large bulbs produce several flowers, and a few in a pan make a good display. Found naturally in wet meadows in Spain, which become dry during the summer, this plant likes plenty of moisture while growing and flowering, but afterwards the bulbs should be well ripened off.

There are several kinds belonging to this set in addition to the above, including the Sulphur Hoop Petticoat (*N. B. var. citrinum*), which is found in the Pyrenees. It has beautiful pale citron yellow flowers of large size, produced about the same time as the type.

A charming little plant is the White Hoop Petticoat from Algiers (*N. B. var. monophyllus*), which comes into flower in January.



THE HOOP PETTICOAT DAFFODIL (NARCISSUS BULBOCODIUM).

It is well adapted for pot culture, but like the others may be grown on a warm border, but does not require quite so much moisture. For colonies in the rock garden they are well suited, where special conditions favourable to their well-being could be supplied.

W. IRVING.

### THE FLAME NASTURTIUM.

IN THE GARDEN of the 10th ult. Mr. G. D. Davison gives some useful advice respecting the cultivation of the Flame Nasturtium (*Tropaeolum speciosum*), in which he says: "In most parts of England this plant has tried the patience and resources of many gardeners." Your readers may, perhaps, be interested to have the experience of one who is now successful. Some seven years ago I planted some roots in a small shrubbery at the corner of a lawn facing north-east, soil poor and light. The roots were planted behind a spreading variegated Holly. For some years it did badly, and I noticed the roots were induced to run away into a small border on the outside of the shrubbery, which was planted with summer-bedding plants, and which were frequently watered by hand during the summer months. It then occurred to me to keep the inside of the shrubbery always quite moist, and thus induce the tuberous roots—for next year's growth—to grow inwards instead of outwards. This has been quite a success, and for the last four years I have had a mass of blossom, the variegated Holly being covered, and its young white shoots showing up in pretty contrast to the scarlet flowers. The blue seed-pods also look very pretty hanging over the variegated leaves of the Holly. I do not disturb the roots, but cover them in the spring with some rich loam. If this can be done in a fairly sunny spot and on our light Surrey soil, other would-be growers need not despair.

A. TROWER.

Wiggle, Redhill.

### PLANTING CARNATIONS.

Now the time has arrived for planting Carnations a few hints on their cultivation may be of use to those amateurs who intend growing them. Providing the soil was trenched during the autumn, which is always the best time for this work, it will have become pulverised by the frost and may be raked over. When ordering the plants, always request that they be sent in their pots, as then there is the least chance of the tender roots being disturbed when planting. If the plants are at all dry on arrival, give a good watering by plunging the pots up to their rims in a tank of water until the air bubbles cease to rise; then transfer them to a bed of ashes to drain for two days before planting. Take great care in removing them from the pots. Moderate growers may be planted 1 foot apart, but vigorous varieties must have 18 inches from plant to plant, and will pay for the extra room allotted them. Stake early, i.e., when the flower-stems are 6 inches high. Thin Bamboo canes are the best for this purpose. Always place the ties immediately below a pair of leaves. I find raffia as good a material as any.

Keep the Dutch hoe going during growth so as to open the soil and to clean the beds of weeds. Look out for the "spittle flies," as their presence will cripple the shoots and spoil the flowers. If fine blooms are wanted, disbud fully, i.e., rub off

all the buds below the crown bud, and encourage the latter one alone on each stem. When the buds are developing, weak soot water may be given twice a week, always using clear water about half-an-hour previously. In showery weather, a sprinkling of nitrate of soda round the plants will be beneficial; but one must be exceedingly careful with this powerful stimulant, as it acts very quickly in swelling the buds, and an overdose will ruin the plants in a very short time.

C. AYLFORD.

Hillfield Cottages, Muswell Hill, N.

### A PRETTY HARDY TWINING PLANT.

CALYSTEGIA PUBESCENS FLORE-PLENO (syn. C. hederacea), the Downy Double Bearbind, is a native of China, introduced from that country in 1844. It is one of the prettiest of hardy perennial twiners, free flowering, attaining a height of 5 feet or 6 feet, and easily grown in almost any soil, a light loamy soil and warm aspect suiting it best. The flowers, which are

tubs, or boxes, for small bowers, &c., in balconies, but care should then be taken that the roots are not allowed to get dry, as it is a plant that likes a moderate amount of moisture. The flowers as they fade should be picked off. In training the shoots it should be remembered that the Calystegia is a right-handed twiner, twining from left to right like the Convolvulus, Runner Bean, and most twining plants, and not like the Hop, Bryony, and Honeysuckle, which twine from right to left. Given proper attention, and not left to take care of itself, this Calystegia is well worth a place in every garden.

South Woodford.

G. W. L. B.

### SAXIFRAGA SANCTA.

THIS Macedonian Saxifrage, which forms broad carpets of dark green foliage, studded in early spring with rich orange-yellow flowers, is probably one of the easiest of all to grow. Although the individual flowers are small, they are produced



SAXIFRAGA SANCTA (FLOWERS YELLOW) ON ROCK FACE AT KEW.

beautifully double, with rather narrow, reflexed petals, vary in shade from a delicate pink to a bright rose.

They are 2 inches to 3 inches in diameter, somewhat like a double pink Carnation in appearance, and last in succession from June throughout the summer and autumn. The growths then die down, and new shoots appear in the spring. The leaves are of a pleasing form, spear-shaped, slightly downy, and arranged alternately on the stem.

An excellent position in which to grow this Calystegia is in a narrow border, where the roots can be kept within bounds, as in congenial soil they are apt to spread further than desirable. A fine display may be had by letting the plants twine up Hop-poles, Bamboos, wirework, trellis, or other suitable medium; but it is advisable to put other flowers, 1 foot to 2 feet high, in front in order to hide the lower leaves, which are liable to turn brown and so look somewhat unsightly. The plant may be grown in pots,

thickly in clustered heads sufficient to make an attractive show. Apart from the flowers, the plant is well worth growing for covering stony banks in the rock garden. In some positions patches of this plant often turn brown and become unsightly.

This may be remedied to a certain extent by giving the plant a good top-dressing in the autumn, working in a quantity of gritty soil between the growths. If the brown patches are large, the plant should be taken up and replanted in fresh soil, when it will soon grow and cover the space again. Directly it has finished flowering is the best time to do this, but it should be well watered and shaded for a time. Closely allied to this species is a plant which is called *S. pseudo-sancta*, a native of Thrace, where it is found on the Balkans. It flowers somewhat later and differs chiefly in the foliage, which is similar to that of the Caucasian *S. juniperifolia*. It is probably only a geographical form of *S. sancta*.

W. IRVING.



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**S**IX POMPON ANEMONE CHRYSANTHEMUMS OF EASY CULTURE.—There are none more promising than the following: Marie Stuart, pale lilac guard florets, sulphur-yellow disc, dwarf; Emily Rowbottom, a beautiful creamy white sport from the last-named sort, lovely in sprays; Antonius, golden yellow guard florets and disc, November, dwarf; Magenta King, magenta guard florets, yellow disc, very distinct and pleasing, November, of medium height; Gem of Earlswood, rosy bluish guard florets, clear citron-yellow disc, beautiful in sprays, late flowering, and Mme. Montels, white guard florets and yellow disc, dwarf, November bloomer. This plant should be partially disbudded to be seen at its best; as a matter of fact this applies to most of this section.

*Pompon Chrysanthemums for a Beginner.*—Varieties of easy culture that usually give a handsome return in the way of blossoms in response to liberal treatment are the following: Mlle. Elise Dordan, a very neat, full, globular bloom of the most dainty description; colour, soft lilac-pink; dwarf and free-flowering; comes into flower in late October. Black Douglas, a distinct flower with fimbriated florets; colour, rich dark crimson; dwarf; flowers in November. Osiris, a distinct flower of beautiful form: colour, rosy pink, edged or tipped salmon. Rosinante, a free-flowering bluish-rose variety that should be partially disbudded; dwarf; in blossom throughout November. Wm. Westlake is the best of its colour, which is a lovely golden yellow, sometimes faintly suffused red; extremely free flowering, and should be disbudded; a November-flowering variety. Maid of Kent is a beautiful white flower, sometimes tinted rose; free flowering; November; height, about 4 feet. Mr. Sabey, also known as William Sabey, is an easily-grown plant, giving an abundant crop of bright golden yellow flowers of good form; dwarf and bushy; flowering in late October and November. In Rabin Perfecta we have a plant that comes into flower in the latter half of November. The flowers are large and of good form, and the colour is a magenta-crimson. The list may well conclude with Florence Carr, a gem in this section, but one seldom met with. The colour is deep bronze, tipped gold, and the form is exquisite; height, 3 feet; November.—D. B. C.

*Strawberry Forcing* in a greenhouse is a delightful pastime, and I am very glad to note that it is being more taken up by amateurs. I regret, however, to note many failures in the ranks, and as these are generally attributable to one cause—mildew—I would here urge upon all growers the need for abundance of water at this season. There is a general idea that mildew is caused by cold draughts. Some of it may be, but much more is caused by dryness at the roots. It may be news to some readers that Strawberries in a well-heated, sunny greenhouse require water three times a day at this season, but I can vouch for the fact that many of them do, and are not happy till they get it.

*Vaporite*—Has every reader yet tried this substance I wonder? If not, the loss is decidedly his. For the extermination of all insect and animal life in the soil there is nothing to approach it, and its introduction I regard as one of the greatest boons ever conferred upon horticulture. The slug, the wireworm, the cockchafer grub, the leather jacket, the millipede, and practically everything that creeps in the soil finds a death-dealing foe in Vaporite. For pot

plants it is equally good, and I know of one specific instance where a trade grower has saved scores of pounds since he used Vaporite in his Fern-potting soil.

*Winter-flowering Begonias* have made a phenomenally rapid advance in public favour, and will prove a great help to the amateur gardener when he learns to treat them properly. At present it is common to encounter leggy, stick and string supported two or three year old plants in amateurs' greenhouses, instead of the sturdy, bushy specimens the market grower and professional gardener cultivate so well. And the cause of the difference? Well, it is very largely, if not solely, due to the fact that the amateur dislikes the idea of cutting back his plants after flowering. Do this as soon as blooming is well over, leaving about 4 inches of the stems above the pots, and sturdy, dwarf plants should result. They will not, however, equal young ones grown from cuttings, which shoot out after the plants are cut down. These are the plants to cultivate for filling vases; even tiny white china vases used for table decoration can be fitted up with plants raised from late-struck cuttings.—E. J. C.

*The Use of Annuals*—Although annuals deserve well-tilled ground and plenty of room in which to develop, and, in fact, must have these conditions if they are to be seen at their best, I have found them most useful in a small border filled chiefly with perennials, for sowing between the latter. Although they do not develop into such good plants as if they had more room and a better soil, they serve the purpose well of hiding the bare soil and of making a veritable undergrowth of flowers that gives a rich beauty to the border for some weeks. There are always spaces between perennial plants which can be filled with annuals in this manner, and without the use of the latter the bare soil will show and detract, to a large extent, from the effect of the border. Some of the annuals most useful for filling up spaces in this way are Candytuft, Collinsia, Clarkia, Linum, Godetia, and Mignonette.

*Violas and Roses.*—One is often asked which are the most suitable plants to plant among Roses. Of course, it is really better to have nothing there at all, so that one may keep the surface of the Rose bed loose by hoeing, and so keep down weeds, aerate the soil, and keep it moist. However, many prefer to have something among Roses, so as to try and hide the bare soil. From their dwarf and almost creeping habit of growth the Violas or Tufted Pansies are as good as anything one can use for this purpose. There are a great number of varieties of Violas now on the market, and one can easily make a selection of colours that will associate best with the Roses among which they are to be planted. Another plant sometimes used for this purpose is the ordinary bedding Lobelia, and a wonderful show it makes when in the height of its beauty, although the plants are inclined to become drawn, and run up and partly smother the Rose bushes. Among annuals the pretty little Virginian Stock is suitable, although it is rather short-lived; this, however, is more or less the fault with all annuals, and it will probably be found best to rely on the Viola.

*The White Arabis.*—This plant, Arabis alba, and its double-flowering variety are most valuable spring-flowering plants, and especially for the beginner. The double variety is a more vigorous grower than the single one, and flowers even

more freely, remaining in bloom for weeks together. No plant is more easily grown; shoots taken off in summer and placed in a shady border will soon take root and develop into a good plant by the following spring. Once established it spreads rapidly, and soon covers a large patch of ground, which is a mass of white in early spring. This is a hardy plant that no beginner should be without.

*The Lawn.*—At this time of year one often wishes to improve one's lawn, which may have become worn and bare in places from various reasons. If there are numerous bare patches, rake the lawn vigorously all over, so as to stimulate the growth of the grass, sift a little soil upon the bare patches, sow some seed, cover this slightly by again sifting soil over it, and then roll. Care must be taken not to roll while the sifted soil is damp; otherwise a good deal of it will cling to the roller, and not only will many of the seeds be pulled up together with the soil, but the roller will be covered and thorough rolling out of the question. After an hour or two hours' sunshine, however, the light covering of sifted soil will have become dry, and a thorough rolling may be given. If seed has been sown over the greater part of the lawn, it is probable that a number of worm-casts may be seen for some days afterwards. These creatures loosen the soil, and if the lawn is not kept well rolled a good deal of the seed will probably fail to germinate. On newly-sown lawns worms are often a most serious nuisance, and even old lawns which have been renovated as described are often more or less covered with worm-casts after the seed is sown. There is now an excellent preparation to be obtained which, when applied to the lawn, brings out the worms and kills them, and at the same time acts as a manure upon the grass. This preparation is a great boon to anyone sowing down a new lawn, for by its use not only are the worms got rid of, but the lawn is manured also.

## TOWN GARDENING.

*Daffodils not Flowering.*—It is a very common occurrence for one's Daffodils to flower most satisfactorily the first spring following the planting, and in successive seasons hardly to flower at all. One is often asked for an explanation of this. Beginners do not understand that it is impossible for the bulbs to keep on producing flowers year after year without any further attention being paid to them. The bulbs ought to be lifted every year after they have done flowering and sorted into their respective sizes, keeping the large and the small in separate sections, and be replanted as carefully as they were in the first place. Before they are replanted, however, the ground should be well dug, and a little well-decayed manure might with advantage be placed beneath them. When the bulbs are left year after year undisturbed they naturally become crowded together, having no room to develop properly, and the soil immediately about them becomes poor and deficient in plant food. In these circumstances it is not surprising that they do not flower. If they are well planted in the first place—that is to say, not too closely together and in fairly good soil—they may be allowed to remain for two years, but then they should certainly be lifted and replanted. Often the bulbs are weakened through the foliage being cut off while it is still green. If one only has a few bulbs, and the leaves are cut with the flowers to any extent, it naturally must seriously weaken the bulbs, and, of course, tend to prevent their development and subsequent flowering.

When the leaves become untidy and begin to turn yellow the plants can easily be kept presentable by being clipped a little.

*Nasturtiums in Window boxes.*—A novel way of growing climbing *Nasturtiums* is to sow the seed in window-boxes, and, instead of training the plants up a trellis-work or sticks, to allow the growths to hang down. They prove most effective when grown in this way, and when in bloom make a splendid display. Those who have not sufficient space at disposal to grow them in the border trained to stakes on trellis-work should sow them in a window-box; they will then obtain a novel and a very satisfactory method of using the climbing *Nasturtium*. I have not seen the varieties of *Convolvulus* major used in this way, but I should imagine they would prove equally successful; at any rate, I intend giving them a trial. The *Nasturtium* needs a poor soil; otherwise it will make vigorous growth, but will flower indifferently. Even in a light soil it grows rampantly and produces an abundance of flowers. It is worth while to get one of the good named varieties which are now to be had; they flower better than the ordinary mixture so often sown. The box in which the seeds are sown should be placed on the sill of a sunny window; if grown in the shade the flowers are apt to be few. A poor light soil and a warm sunny window are essential to its free flowering.

*Plants in Boxes.*—Where garden space is much restricted, as it usually is in the town garden, boxes may often be requisitioned, and by their means considerable beauty may be added to the garden. There are many plants one might grow in them; Sweet Peas, for instance, will do as well in boxes as in tubs, and some of the *Liliums*, notably the Tiger Lily and *Lilium speciosum* varieties, make a splendid show in late summer if grown in fairly deep boxes filled with a suitable soil. Several holes should be bored in the bottoms of the boxes with a red-hot iron, cover these with crocks, and place some rough material, such as turfy soil or strawy manure, over the drainage to prevent the loose soil above falling into and choking it. To grow Sweet Peas in the boxes the soil must be made rich; one-half turfy soil and the other half well-decayed manure thoroughly mixed together will suit them. For the *Liliums* use two-thirds loam to one-third well-decayed manure and leaf-soil, mixing in a fair amount of sand. One might grow *Gladioli*, early-flowering *Chrysanthemums*, *Carnations*, and many annual flowers in this way, and so make a good show of flowers even without a border at all.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**S**WEET VIOLETS are welcome at any time of year; although the months of March and April are the natural blooming season, it is desirable to extend it as far as possible. Violets will grow almost anywhere with very little care, except in very stiff and clayey soil or in town gardens that are shut in by high walls. They require an abundance of fresh air. Deep loam, or soils of a moderately heavy nature, are the best. Sandy and gravelly soils must have an abundance of good rotten manure dug in. Plants that have been growing in cold frames for the production of bloom in midwinter are now growing freely, and any quantity of runners or divisions with roots may be obtained. These should be taken now and planted 1 foot apart on well-prepared beds. Partial shade is desirable, as they will not be so liable to attacks of red spider. In dry weather they should be frequently watered. Keep the surface soil stirred

with a hoe and free from weeds, and cut off runners. By the latter part of August they will produce a few blooms, and early in September a sufficient quantity of the best plants should be planted in frames placed on raised beds of leaves in a sunny position, and filled with a sweet soil to within a few inches of the top of the frame. On the approach of winter the lights should be put on, admitting abundance of air on mild days. A succession of flowers will be kept up all winter. Violets will bear a considerable amount of sunshine, but they resent forcing. If planted at the foot of south walls, they frequently dwindle and die after the first season. Still, it is desirable to plant a few annually in such a position, as they will give some early flowers. I would advise that a sufficient number of plants be propagated and grown on specially-prepared quarters each year to be transplanted in September in frames and various positions outside: at the foot of south, north, and east walls, sunny banks and shady spots, as by this means Violets may be picked in greater or less quantities during three-parts of the year. *Princess of Wales* and *La France* are two of the best singles. *Swanley Double White*, *Marie Louise*, *Lady Hume Campbell*, and the old *Neapolitan* represent the best doubles, varying slightly in colour.

*Montbretias* wintered in cold frames have made sturdy growth. They have been hardened and may now be planted out. The ground where it is desirable to form groups should have plenty of old hot-bed manure or leaf-soil trenched in. For grouping the plants may be placed 6 inches apart. At this distance they form masses of colour, but if a border is used for their special culture, plant in rows 1 foot apart, and 6 inches apart in the rows; this allows room to use a hoe freely.

G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**DENDROBIUMS.**—The numerous hybrids and distinct species of the deciduous section of *Dendrobiums* having passed out of flower and been pruned as advised, are now producing strong growths, and should be repotted or resurfaced with fresh material as may be necessary. It is not advisable to disturb any plant that is growing freely unless the receptacle is too small to carry it through another season or the compost is bad. The old compost should be pricked out carefully from such plants as do not require repotting and replaced with living heads of sphagnum moss and fibrous peat. In repotting care must be taken not to disturb them more than is necessary. The plants should be allowed to become quite dry before being turned out of the pots. If the plants are well rooted, it is better in many cases to break the pot carefully in order to remove the roots which adhere to the sides. With most plants in this condition simply remove the surface compost and place in a pot or pan one or two sizes larger. Where the compost is bad remove all from the roots and give the plants a fresh start. *Dendrobiums* do equally well in pots or pans. The potting mixture may consist of two parts chopped sphagnum moss to one part good fibrous peat mixed together with a quantity of finely-broken crock and coarse silver sand. They do not require large receptacles in which to grow. If pots are used they should be half filled with crock drainage, over which place a layer of sphagnum, then place the roots in as naturally as possible and work the compost between and about them moderately firm to within an inch of the rim and surface with living heads of sphagnum moss, keeping the base of the young growths just level with the surface. The long pseudo-bulbs should be tied to a neat stake. This section of *Dendrobiums* requires a hot moist atmosphere during the growing season, the conditions of an ordinary plant stove suits them well, and many a roof could be filled with them to advantage. They are becoming very popular

again owing to their easy culture and little expense. *Dendrobium Cybele*, *D. C. giganteum*, *D. Sibyl*, *D. Harold*, *D. Juno*, *D. Ainsworthii* varieties, *D. splendissimum grandiflorum*, *D. melanodiscus* varieties, *D. Artemis*, *D. Apollo grandiflorum*, and *D. deodemon* are all beautiful hybrids well worth cultivating.

W. H. PAGE.

Chardwar, Bourton-on-the-Water, Gloucester.

### FRUIT GARDEN.

**PLANTING YOUNG VINES.**—This is a suitable time to plant young Vines if they were procured in the early winter in the form known as planting Canes and kept in a cool house. I find the late Peach-house a suitable temperature in which to keep them during winter. They will now have made growth of about 3 inches in length, which points to the fact that their roots are beginning to show signs of starting, and thus the proper time to plant. In the cool temperature the buds will have started evenly and regularly, and if the Canes have not been sufficiently shortened when in a dormant state, do not do this now, but remove the buds from the upper portion to the length desired, and shorten the Canes later on when in active growth, or they may be left to the winter pruning. A little fresh loam, chopped fine, should be spread over the surface of the border (prepared as advised previously) to provide a suitable medium for the young roots before they descend into the rougher and stronger compost of which the border consists. When turned out of the pots, the roots should be carefully disentangled; and to facilitate this dip them in a pail of water to remove all soil. The roots can then be spread out evenly over the border, working some fresh loam well among them with the hand and covering them to a depth of 2 inches. Make all moderately firm by treading, and give a good watering with tepid water.

THE VINES should be syringed lightly twice a day, and the house kept rather close and moist until growth has fairly commenced, when more air should be afforded and every effort made to obtain sturdy, short-jointed canes. The young shoots will continue to grow on, without any signs of having been moved, until they are about 6 inches long, when, owing to the stored-up sap being exhausted, a slight check in their growth will be noticed; but the roots are meantime becoming active, and a vigorous renewal of growth will soon be apparent. The leaders and side shoots should be allowed to extend over the trellis freely.

**THE ORCHARD HOUSE.**—When the trees are in flower the atmosphere should be kept as dry and airy as possible, and the pollen distributed daily by giving a brisk tap to the stem of each tree. On bright days the pollen may be distributed effectively by means of a syringe with a fine rose, applied with considerable force. As soon as the fruits are set and beginning to swell, syringing should be practised twice daily unless during dull weather, and an occasional application of weak liquid manure given. Very careful watering and manuring are necessary. The trees should be disbudded early, leaving sufficient young growths to maintain their symmetry and continued fruitfulness. The side shoots should be stopped at the fourth or fifth leaf, and the leading growths at a point which will determine the gradual extension of the tree. If black or green fly become troublesome, fumigate the house on two evenings in succession and syringe vigorously the morning after.

Glasgow, N.B.

THOMAS R. WILSON.

### KITCHEN GARDEN.

**BEANS.**—The sowing of the first lot of Scarlet Runner Beans must soon be taken in hand. The ground should be in good order, well manured and trenched; lightly fork now the space where the seeds are to go. Sow seeds of approved varieties in double rows, 6 inches between the rows, and 10 inches or 12 inches between the seeds. A

space of at least 9 feet should be allotted between the double rows, so that one row shall not shade the other. The spaces between the rows can be filled in with a green crop, such as Cabbage or Lettuce. It is a good plan to put in the sticks at the time of sowing; good stout Ash sticks 10 feet or 12 feet long are the best. Fix firmly in the ground on each side of the rows, crossing each other about 7 feet from the ground, with another stick tied at right angles at the fork to give greater stability. Have the sticks about 9 inches wide at the bottom of the rows. If early Beans are required, a little time is gained by sowing in pots and planting out when in rough leaf. A sowing of dwarf Beans can now be made out of doors on a warm border. Ne Plus Ultra and Canadian Wonder are good varieties. Insert the seeds singly, about 6 inches apart, in rows, allowing a space of 18 inches between the rows. Continue with successional sowings of Broad Beans.

**SALSIFY AND SOORZONERA** should be sown now in good well-worked ground. Long fresh manure must not be in the ground, or the roots may be deformed. Sow thinly in drills 12 inches apart and about 1 inch deep.

**SALADS.**—Chicory and Dandelion are both very useful as a change for salads in the winter, early spring, or when Lettuce is running short. Sow seed of each now, in fairly rich soil, in drills 12 inches apart. Make regular sowings of Lettuce, Radish, and Mustard and Cress. Transplant from cold frames to a warm border surplus rows of pricked-out Lettuces.

**GENERAL REMARKS.**—It is worth while making notes of the different varieties of Broccoli, Kale, &c., that are giving the greatest satisfaction this season. The sprouting varieties of Broccoli have been about the best with us during the very trying weather we have had, other varieties, such as Maincrop, Leamington, &c., not growing so freely as they do some seasons. Spring Cabbages are, on the whole, good, though a number of Ellam's Dwarf bolted in March, which was not the case with Sutton's April. I am inclined to think this is an improvement on the first-named variety. It is the first time I have grown them side by side, and I must say I like the April Cabbage very much. Turnip Tops or Greens are always very useful and generally appreciated. Sow the variety Golden Ball in August. Asparagus Kale is a most useful vegetable, being exceptionally hardy, and should find a place in every garden. Where there is a likelihood of frost, pay attention to the covering of Potatoes coming through the ground, and also to Asparagus. Cut any heads fit for use in the evening, and cover the shorter ones with some light, dry litter.

J. JAQUES.  
*Bryanston Gardens, Blandford.*

## PRIZES FOR GARDENERS. APRIL.

### STRAWBERRIES OUT OF DOORS IN SUMMER AND AUTUMN.

- A First Prize of FOUR GUINEAS,
- A Second Prize of TWO GUINEAS,
- A Third Prize of ONE GUINEA,
- And a Fourth Prize of HALF-A-GUINEA

are offered for the best essays upon "How to Provide a Crop of Strawberries Out of Doors during Summer and Autumn without the Aid of Glass."

The essay (limited to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this

office not later than April 30. Both amateur and professional gardeners may compete, but it is to be hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**BEGONIAS FOR BEDDING** (*A Reader*).—The Begonia tubers should be at once potted singly into pots 4 inches or 4½ inches in diameter in a mixture of loam, leaf-mould, and sand. Begonias are very fond of leaf-mould, hence the quantity used should be about the same as the loam, the compost being completed by a fair sprinkling of sand. In potting the soil must not be pressed down too firmly, and the tubers should be covered with about half-an-inch of soil. They may then be put in a cool greenhouse or frame till bedding-out time. We should not advise you to cut up the bulbs, as those so treated are very apt to decay. Before planting them out the bed must be well dug, and, if necessary, some thoroughly decayed manure should be mixed with the soil. A foot apart is a very good distance to set out the plants; do not bury the stem too deeply, 2 inches being a very suitable depth. The soil must be kept moderately moist after planting is done, and, should hot weather set in, the plants are greatly benefited by a good watering overhead through a fine rose in the evening. They are much helped by a top-dressing of Cocoanut refuse.

**VARIOUS QUESTIONS** (*Mrs Dinesen*).—We think Clematis montana would be likely to succeed in a partly-shaded quarter of the garden, and would probably withstand a more or less windy position. Of the Roses you mention we prefer Dorothy Perkins, Aimée Vibert, and Blush Rambler. Aimée Vibert would be likely to do best with least sun. Other good Roses suitable for training over old Apple trees are Mme. Alfred Carrière, white, Perpetual; Carmine Pillar, rose-red, summer only; Mme. d'Arblay, white, summer only; Polyantha grandiflora, white, summer only. The Hydrangeas which you saw illustrated in THE GARDEN were the ordinary pink Hydrangea Hortensis. This plant is not hardy, and is usually grown in this country as a greenhouse plant. It is, however, very handsome when grown in tube and placed in the flower garden out of doors during the summer months. You could procure roots now that would flower this coming summer. Start them in the greenhouse and harden off before putting out of doors. Roses Mme. Jules Graveraux and Claire Jaquier would do for planting by the side of the steps, or you might try Dorothy Perkins as you already have it. Alberic Barbier,

a wichuriana with cream-coloured flowers, would also do. Sow the seed of the Forget-me-not on a shady border. We think it should do well if planted in a moist and somewhat shady spot near the pond. Why not try the Traveller's Joy (Clematis Vitalba) as a covering for the Elm tree? Polygonum baldschuanicum would not do; Aristolochia Siphon might.

**RHAZYA ORIENTALIS** (*M. L. Williams*).—This plant is a native of Greece and Asia Minor. It grows about 2 feet high, with sub-shrubby stems which die down in the winter. The flowers are produced in terminal cymes, and vary in colour from bright blue to dark violet. Not at all difficult to grow, it flourishes in the open border, but loves to ramble among stones on a rocky bank, and in such places it will soon make itself at home. For soil it prefers sandy loam, and a position where it gets plenty of sun. It was introduced into cultivation in the year 1839, and is of erect habit, with narrow, Willow-like leaves thickly set on the stems. R. orientalis is the only species at present grown in gardens, and it may be transplanted with safety at any time during the late autumn or spring. The Amaeoniae are of similar habit, and there are two species in cultivation. A. salicifolia comes from North America, reaching a height of about 2 feet, with light blue flowers in summer. The other, A. Tabernamontana, also a North American plant, grows taller, and has broader leaves and pale blue flowers. They will all thrive in sandy loam in sunny or half-shady borders, or on the edges of shrubberies, and may be propagated by cuttings during the summer months or by division of the roots in spring.

**RAINING PRIMULAS FROM SEED** (*Amy D. Barnwell*).—Take perfectly clean pots of 6-inch diameter, insert clean crooks for drainage to the extent of one-fourth their depth, and cover with clean moss or Cocoanut fibre refuse. Take fresh loam, finely sifted, and sand in proportion of one-third, mixing well together. Make the soil moderately firm and quite level. Spread fine sand over the surface-soil of each pot, which should have been watered some hours before. Such as villosa, viscosa, luteola, Parryi, Auricula, &c., are slow in growth, and flowering plants would hardly be obtained under two years. The Sieboldi varieties, with rosea, denticulata, and cashmiriana are all moisture-loving. Seedlings should appear in about three weeks; prick them off when ready, and keep lightly shaded. Plant them out early in richly manured and very sandy soil in a shady spot. The strongest of these seedlings will flower in about ten months. P. sikkimensis, almost a bog plant, should be regarded rather as a biennial. Soldanella, Ramondia, and Dodecatheon, adding fine peat to the soil, should be treated much the same as the second set of Primulas. The Polyanthus should be sown at once, scattering the seeds broadcast on finely prepared soil, but give no soil covering. The Saxifrage and Myosotis will afford no trouble if thinly sown on an even surface. The first must not be covered by soil, and the second only lightly covered.

**PLANTING LILIES** (*Annie Tritton*).—Lilium elegans atrocaeruleum is perfectly hardy, and thrives best in a soil consisting principally of sandy loam. If sheltered by low-growing shrubs, so that the tender shoots are protected from winds, it is a great advantage. They do not need any artificial manure or fertilizer. If you have grown them under the same conditions as Valotas and Amaryllis, their constitution has been too much weakened for them to thrive. A good book on the subject is "Lilies for English Gardens," by Gertrude Jekyll, published at THE GARDEN Office. This book, in common with all publications on the same subject, deals only with the true Lilies.

**WEEDS IN POND** (*J. T., Worthing*).—Weeds in small ponds must be kept down by continual cleaning. The Duckweed may be easily skimmed off periodically, as it is only on the surface, but others that grow beneath are more difficult to eradicate. To do this thoroughly the pond must have the water drained off, and the bottom can then be scraped and all weeds removed. This, of course, can only be done in the winter. The weeds may be kept under during summer by dragging them out with a rake or Birch broom. The latter is very effective, as it can be twisted round and round, and thus catch all loose weeds.

The liquid cow manure may be applied to Iris Kæmpferi just before the flowering period commences.

**GREEN MOSS IN POND (Bryn).**—The green slime arising from the bottom of ponds, where there are fish, is difficult to get rid of. The best means of keeping it in check is to make a long-handled skimmer, the end made of fine-meshed galvanized wire, on a strong iron hoop. By skimming the pond once or twice a week it will be kept fairly clean.

**POLYGONUM BALDSEHUANICUM (Mrs. Scott Elliott).**—This plant often grows freely for several years after being planted without flowering much, and it may be that the plants you mention are in too rich a soil or have been supplied with too much manure. It flowers best in rather poor sandy soil and when it has become thoroughly established. Plenty of sun is essential for ripening the wood, and it should have an open situation where it can obtain plenty of air and light. The plant should be trained to the top of the tree over which it is to ramble, and should then be allowed to take its own course. It will not flower much till it has reached this point.

**SCENTED SUMMER FLOWERS (West Sussex).**—It is a difficult matter to suggest anything to take the place of Mignonette and Stocks; but, by sowing a succession of these, their flowering season could be extended over a lengthened period. The Night-scented Stock (*Matthiola bicornis*) and Nicotiana affinis might also suit your purpose. We hardly think the objection to Lilliums would include *Lilium longiflorum*, as its fragrance is far more refined than the others. Of scented foliage especial mention may be made of the numerous scented-leaved Pelargoniums, the Lemon-scented Verbena (*Aloysia citrifolia*), the Myrtle, and, of perfectly hardy plants, the Lavender and Rosemary.

## THE GREENHOUSE.

**LATHYRUS PUBESCENS (The Nunery).**—This species is a native of Chili and Uruguay, and while succeeding quite well and flowering in the open garden in sheltered positions in many parts of the country, is not quite hardy even with protection. It does not each year spring from the base, and following a heavy flowering the plant might die. As it has been flowered and stood for some years in the open in your country, you have every hope of success. A deep moderately rich loam and a south-west position will suit it well, and the plant should be put out early in May, having been previously thoroughly hardened off; your plant should certainly flower this year. Prior to planting out you should encourage it to make the fullest growth by affording the plant a shift into a pot of larger size.

**GERANIUMS DAMPING OFF (B. K.).**—Had your desire been to kill the Geraniums you could not have followed a more effectual plan. Those that you put in sand were doubtless dead long ago, and you cannot hope for any survivors. You might have kept a good many of them alive in your dry room free from frost if you had treated them in this way: After being lifted lay them out in the room for a few days, when they will then lose most of their leaves. Then look them over and shorten back any very long, straggling branches, and cut off any stout leaves that have not dropped. In cutting off a leaf the better way is to leave 1 inch of the leaf-stalk still attached to the plant, as if the leaf is pulled away at its base it often injures the shoot and decay sets in. When the plants are so prepared, take a box about 6 inches deep and plant them thickly therein, using soil that is only slightly moist. Throughout the winter they may have a little water at long intervals, and with the return of spring, when the young shoots begin to push out, more may be given.

**IMANTOPHYLLUM (James Phely).**—We have carefully examined the flower sent, and fail to find the least sign of an *Imantophyllum* cross therein, and therefore come to the conclusion that the flower from which the seed was taken must have been fertilised either with its own pollen or that of a neighbouring bloom of *Amaryllis*. The petals are certainly much narrower than those of the best class of garden *Amaryllis*, but even seedlings from these sometimes revert towards the original type, and this we should say is the case with yours. At all events, it is of no commercial value.

**DOUBLE CYCLAMEN (G. W.).**—It is not at all unusual to find a Cyclamen with as many petals as the flower you send, although the petals in this case are rather more regularly disposed than usual. For some years Messrs. Sutton tried to fix a strain which would give a fair percentage of such double flowers from seed, but did not obtain much success. You say that the flower is from a corm which did not bloom last year, and we think that the additional strength thus gained may be the cause of the flower producing an abnormal number of petals this

season. Possibly your plant may give normal flowers in the future.

**CHRYSANTHEMUM (A. Yates).**—It is certainly very uncommon behaviour for a *Chrysanthemum*, but we are inclined to think that the plant in question is not a *Chrysanthemum* at all, but some stranger, the seed of which was, perhaps, present in the soil. It is of course impossible for us to give the name, but if you send a spray when in flower, we shall be pleased to do our best in the matter.

## ROSE GARDEN.

**WICHURIANA ROSE (Constant Reader).**—The Rose Dorothy Perkins is a climber or Rambler; you may either have it as a pillar Rose over an arch or trellis-work, or you may even allow it to creep along the ground. If it was planted last autumn or this spring your best plan would be to cut down all the growths to within 6 inches of the base; this will result in the production of a number of vigorous shoots during the coming summer. These may need shortening just a little early in the spring of next year, and they will flower in the summer. Unless you cut down these growths now, you will not get such vigorous shoots this year as you otherwise would do. It is far better to sacrifice the flowers for the first season after planting, and so lay the foundation of a good plant that will bloom well in succeeding years, than not to prune it severely now.

**LATE PRUNING (J. J.).**—No, it is not too late to prune now; in fact, some of the tender Tea Roses are best left until now. Wait and see how the weakly Tea varieties promise before you prune them. You can tell better when they begin to grow. Probably they will need little or no pruning.

**ROSES DAMAGED BY FROST (Marco).**—The appearance of the shoots you sent point to their having been injured by frost. The mild weather early in the year brought Roses into growth exceptionally early, and the tender shoots were damaged by late frost. The older wood, too, was evidently caught by the frost. If the trees are badly injured you must prune back beyond the injured parts; but wait and see—they may recover.

## FRUIT GARDEN.

**APPLE TREES (H. H.).**—As your Apple trees do not make satisfactory growth they are evidently in soil that does not suit them. All you can do now is to remove several inches of the surface-soil until you come to a fair number of roots; you must then replace the soil taken away with rich soil consisting of half turfy loam and half well-decayed manure. Mix these thoroughly together before applying them; make sure that the trees do not suffer from want of water during the summer time, especially if it should be hot and dry. In the autumn you would do well to dig a trench around the trees about 5 feet away from the stem, make the trench about 2 feet wide, and then, working towards the tree, fork away the soil until you have exposed a fair number of roots. The old soil should be carted away and replaced with good turfy loam with which some farmyard manure and bones have previously been mixed; relay the roots in this very carefully, and make the soil firm by treading as the work proceeds. This should be done at the end of October or early in November. You do not say anything about the pruning of the trees, but you had better prune them as little as possible for a year or two.

**PRESERVING FRUITS (Anon).**—Have ready large-mouthed bottles, clean and dry. Peel and cut the fruits into halves or quarters; place them in the bottle with the aid of a piece of flat wood. Have some syrup ready, which must be applied cold. The syrup is made as follows: To one pound of loaf sugar add one pint of cold water, and place on the fire and boil gently for ten or fifteen minutes, skimming off the scum as it rises; draw the pan off the fire and set in a cool place until cold. Have corks ready that will fit tightly. Pour the syrup on the fruit so as to cover it, but only to the lower part of the neck of the bottle, leaving a space of 1½ inches between the syrup and cork. The cork should be pressed in a cork-presser, and well rinsed in cold water, before being put in the bottle. Then cover the cork three times with rough string, securing the string tightly under the rim. Then place the bottle in a

pan on the fire. Let the bottles rest on slips of wood in the pan. Fold each bottle in a cloth, then with cold water fill to the level of the lower part of the bottle neck. Cover all over with a coarse towel. Heat the contents of the pan quickly almost to boiling point. When the thermometer registers 200° Fahr., take off the pan and place in cold room, there to remain until quite cold. Then take out the bottles and place in a cool cellar or cupboard till wanted. The fruit will remain in good condition for many months. This is a simple and effectual method. Peaches and Nectarines may be treated as described. Apricots should be less ripe.

**PRESERVING PEARS AND CHERRIES (Reader).**—The Pears must not be fully ripe. Cut in halves or quarters, peel and remove the cores, and place in a pan of water containing Lemon juice until all are ready. Place some syrup (rather weaker than mentioned for the Peach) in a pan to boil, put in ten peeled Pears, and gently bring to boiling point. Let them simmer until a little tender, then take the pan off the stove and place fruit carefully in basin with sufficient of the syrup in which they were boiled to float them. Place in a cool place until the next day, when again place in the pan and add a little more candied sugar. Simmer up again and replace in bowl as before. Early next day the Pears and syrup must be placed in bottles and finished off as described for Peaches. Cherries must be sound and gathered dry. Leave the stalks half-an-inch long, and arrange in the bottle so that the stalks cannot pierce the fruits. To each quart of best pale brandy add 3z. of brown sugar candy. This must be well crushed and mixed with 3z. or 4z. of water and then heated so as to melt the sugar; when cool add it to the brandy. Then fill the bottles to within an inch of the rim. Place a piece of bladder over the bottle mouth and press a well-fitting cork into it; then tie down and place in a cool cupboard. In two or three months' time take out the cork and add 1z. or 2z. of the candy and brandy syrup to replace that absorbed by the fruit. Add a small piece of Vanilla. Replace the cork and tie down. You can use the Cherries in a month or keep for two years.

**VINE LEAVES INJURED (J. Peeling).**—There does not seem to be much the matter with the Vine leaves sent. They are strong and healthy and of good colour. We presume the damage you refer to lies in the small blotches on the leaves. These are most likely caused by the sun shining on the leaves in the early morning while the latter were moist. If you had dusted them with sulphur this evil might be aggravated somewhat. You must give a little ventilation on the top of the house very early in the morning, or if it is not frosty you might leave the lights open all night, say for about 1 inch or less, so as to prevent moisture settling on the leaves.

**MELONS AND CUCUMBERS IN SAME HOUSE (Enquirer).**—Yes, they can be grown together very well up to a certain point—that is, until the period of ripening in the Melon, when the atmosphere and the roots must be kept on the dry side. If the Melons are planted by themselves at one end, keeping the plants drier for a short time at this period and admitting air more freely will not harm the Cucumbers, as they may be kept moist and growing just the same. It is better, of course, to grow each in a separate house; but many cannot do this, and it is quite possible to grow them well together. The Melon must be planted in heavier loam than the Cucumber.

**SPRAYING FRUIT TREES (S. C.).**—Paris green is a compound of arsenic and copper. Its application at this time of the year, when your fruit trees are about coming into bloom, would be attended with some danger to your bees, and possibly to the blossom. As a winter dressing it is excellent. We suggest the following as a substitute: Dissolve 2lb. of soft soap in one gallon of boiling water, add two gallons of paraffin, and mix the two well together while the water is hot. The way to apply this strong emulsion to your fruit trees will be by adding one quart of this to forty-five quarts of water (rainwater preferably), syringing your trees with it on two alternate evenings. This should rid the trees of all pests for some time to come.

**GROWING VINES (E. Randall).**—Gros Colmar, Muscat of Alexandria, and Madresfield Court need a warmer house than Black Hamburg. With the latter you might grow the white Foster's Seedling. It is important to have a well-drained border of turfy loam with which some artificial vine manure has been mixed. It should be about 3 feet deep and 4 feet wide for the first year. In subsequent years add fresh soil as the roots require it, until the border extends across the house. Plant carefully. You might grow Tomatoes in the house this year, but afterwards the Vine foliage would give too dense a shade to allow of



anything being grown beneath. Give little air and shade if hot for a few days after planting. During the summer give a fair amount of air on warm days. Close the house in the afternoon and syringe. Then the temperature will rise from sun heat. Do not grow *Stephanotis* and *Ferns* in the same house. Read the weekly "Fruit Garden" Calendar for detailed instructions.

### KITCHEN GARDEN.

**PROFITABLE CROP FOR SMALL GARDEN (S. G.).** If the land is in good heart and well manured we think that Brussels Sprouts if planted about the middle of June would be as safe a crop to plant as any. It does not entail much labour to cultivate, always has a ready market, and commands a fair price. If not already sown, the seeds should be sown at once. Second early Potatoes, such as the Duke of Albany, would prove a remunerative crop, to be succeeded by a crop of Coleworts (Maiden Cabbage) for cutting from November to Christmas. A crop of dwarf Peas, such as Carter's Daisy, would give splendid returns, and would be cleared away in time to plant the ground again with Winter Spinach or late Leeks for use in spring. Celery could be planted if desired, to be succeeded with spring Cabbage planted as early in the autumn as convenient. The Tomato on warm rich land is one of the best paying out-of-doors crops that can be grown, especially in warm summers, but unless you have had some experience in the growth of this plant it would be too risky to start on too large a scale, but you might try a few rows and note result for future guidance.

### MISCELLANEOUS.

**SCALE INSECTS (A. Sufferer).**—Your *Euonymus* plants are attacked by one of the scale insects (*Chionaspis salicis*), a common pest which attacks a considerable number of different trees and shrubs. The best thing that you can do is to take up and burn any bushes which are in a hopeless condition, and spray or syringe the others with a solution of paraffin emulsion. This operation should be repeated in a fortnight's time.—G. S. S.

**GARRIA ELLIPTICA (R. M. S.).**—The best time to move this shrub would be on a mild day towards the end of March, after the beauty of the catkins is over. You would then not interfere with its flowering. If you were to transplant it in the autumn, it is more than probable that it would not flower the following winter. You should transplant it at once. Yes, by all means cut off the flower-stalks from *Alyssum saxatile* after flowering is over. There can be no object in leaving them on the plants, especially as you say they make the border look very untidy.

**SILVER LEAF IN PEACH TREE (K. Carib).**—Your Peach tree is certainly suffering from silver leaf. This disease is now supposed to be caused by a fungus belonging to the genus *Stereum*, which is one of those fungi which infect the tissues of the plants they attack, so that no fungicide is of any use in destroying it. The only way to deal with this fungus is to cut away the shoots that are diseased; as you say that the shoots at the base of the tree were the first attacked, I should be afraid that it was a hopeless case, and that it would be better to remove the tree at once.—G. S. S.

**BEECH HEDGER (Hedgesfeld).**—As you have only just planted the Beech you should not advise you to cut it down this year, but to wait for a year and then cut them back in May to the required height. By doing this you will be giving the plants a chance to make new roots and be ready to break out from the lower part of the stem when cut back. You could trim the younger wood back a little this year, as soon as growth has fairly commenced, but to cut them much the first season will cripple them badly, and probably kill many of them outright. Newly-transplanted trees and shrubs should always be allowed a season to get established in before being pruned or trimmed to any extent, as to cut their tops as well as their roots is not giving them a fair chance to recover after removal.

**FORMING A HORTICULTURAL DEBATING SOCIETY (F. C. G.).**—We have forwarded you per post a copy of rules of a gardeners' mutual improvement society, which is probably the type of the one you wish to form, but under another name. To form a mere debating society for gardeners and amateurs would, to some extent, rule out evening lectures, as occasionally such discourses, that last for probably an hour, to allow of some subject of interest being fully dealt with, are to any such society indispensable. In arranging a course of meetings, say, fortnightly, it would be a good arrangement, where the members wished to debate subjects, to have a full lecture on some prominent topic on alternate evenings, and brief papers or addresses, not to exceed twenty minutes' duration, to open the debate on other evenings. Such debates should be regarded specially as young members' rights, to induce them not only to learn public speaking, but also to encourage them to look up information beforehand on the subject of the debate. Naturally, in relation to garden work there is less likelihood of much diverse opinion than is found in the consideration of many other subjects. It is well to make a regulation limiting all speeches after the opener's to ten minutes. The committee of the society should select subjects for discussion, and, so far as

possible, secure some member or other to consent to introduce them each evening.

**THE HURTINGDON WILLOW (H.P.M.).**—If good clean stakes are available, we should prefer them to rooted trees from a nursery, but that all depends upon the quality of the cuttings or stakes that are at hand. The time to do this is in late autumn or winter, when devoid of foliage. A distance of 3 feet each way is a very good one, as if this is done the young plants will serve to shelter each other, and make more rapid progress than if set out at a greater width. At the end of six to eight years they will begin to get crowded, and may then be thinned out to half their number. The thinnings are then very useful for fencing and other similar purposes. At 6 feet apart the trees will attain a good timber size. We do not know of any reason why Willows should not flourish in your district, provided the conditions as to moisture, &c., are favourable to them.

**NAMES OF PLANTS.**—*H. J.*—1, *Euonymus japonicus* var. *aureus*; 2, *Euonymus radicans*.—*J. Thomas*.—1 and 3 are *Dendrobium thyrsiflorum*; 2, a very good form of *D. Farmeri*.—*Subrum*.—1, *Pulmonaria officinalis*; 2, *Pulmonaria officinalis* var. *alba*; 3, *Oxydendron fulgens*; 4, *Lavandula pinnata*; 5, *Chelidonium Chelid. (type)*.—*Someret*.—*Saxifraga canaliculata*; 1, *Helleborus viridis*; 2, *H. orientalis rosea*.—*Trifoli*.—*Oxalis cornuta flore pleno*.—*R. G. G.*—*Diosma erionides*.—*J. P. F.*—*Ocotoneaster frigida*.—*Constant Reader*.—1, *Pteris cretica albolineata*; 2, *Adiantum cuneatum*; 3, *Gymnogramme calomelanos chrysophylla*; 4, *Adiantum cuneatum gracilimum*.—*S. Proctor*.—*Fuchsia Lustre*.

### THE EDITOR'S TABLE.

**W**E invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, W.C.

#### ERCHILLA SPICATA.

"R. M. P." writes: "Herewith I send a few sprays of *Erchilla spicata*, from a south-west wall in the Royal Botanic Gardens, Glasnevin. This is a hardy evergreen shrub, which clings to the wall like Ivy, and is a mass of small creamy purple flowers borne on short racemes. These have a delicious perfume of Primroses. The plant is also known as *Bridgesia spicata*, and is a native of Chili and Peru."

[We were pleased to see this plant, which is one of the most interesting introductions we have received from Chili.—Ed.]

### LEGAL POINTS.

**INCOME TAX (Shooting Rights).**—Shooting rights are rateable both for King's taxes and local rates. It is immaterial that the owner does not shoot. His abstinence does not prejudicially affect the value of his property, but if there are no game the rating authorities must take this fact into consideration when making the assessment. The question is what annual rent might a tenant reasonably be expected to pay for the property if the tenant paid all the usual tenant's rates and taxes and the landlord undertook to bear the cost of repairs, insurances, and other expenses (if any) necessary to maintain the premises in a state to command the rent. Where the land is let and the owner retains the sporting rights, the gross and rateable values are estimated as if the sporting rights were not retained, and if the rateable value is thus increased the landlord must allow the occupier the proportion of the rate attributable to the sporting rights unless the occupier has expressly agreed to pay the whole rate. Where land is let to one tenant and the sporting rights to another, the rating authority may rate either the owner of the land or the tenant of the sporting rights in respect of such rights. The

Public Health Act, 1875, as amended by the Acts of 1890 and 1891, provides that the occupier of woodlands in an urban sanitary or rural district shall be assessed in respect thereof to the general district rate in the proportion of one-fourth part only of the net annual value. But this exemption does not extend to sporting rights when let and severed from the land. For further information see "Law for the Million," under "Rates."

### SOCIETIES.

#### NATIONAL AMATEUR GARDENERS' ASSOCIATION

THIS association held its April flower show and lecture at Winchester House, Old Broad Street, E.C., on the 2nd inst. Mr. T. W. Sanders, F.R.S., the president, occupied the chair, while a most instructive and interesting lecture on "The Cultivation of Tomatoes and Cucumbers" was delivered by Mr. W. Dyke. At the conclusion the lecturer was greeted with considerable applause from a great assembly of members. In the great hall the exhibition of flowers, &c., was a sight one would hardly expect to find in the very heart of the City. These exhibits are mostly grown by amateurs engaged in various City commercial houses during the day, and the high standard of quality demonstrates the fact that, even with limited time at his disposal, the intelligent amateur is capable of producing fruit, vegetables, and flowers worthy of a place on any exhibition table. The judges drew special attention to the excellence of the ladies' table and other decorative exhibits, of which there were quite a dozen. The next flower show takes place on May 1 at 7 p.m., and the lecture will be "Cactus Dahlias," by Mr. J. B. Riding. The annual subscription to this association is 5s., and the hon. secretary, Mr. Richard Cordwell, 35, Medusa Road, Catford, S.E., will be happy to furnish any information desired.

#### DUMFRIESSHIRE AND GALLOWAY HORTICULTURAL SOCIETY.

THE annual meeting of this society was held on the 4th inst., Mr. E. Service presiding. The report of the secretary and treasurer, Mr. R. G. Mann, was the most satisfactory for some years. The report was adopted, and it was agreed to hold the annual Chrysanthemum show alone this year on November 7. Mr. R. G. Mann was reappointed secretary and treasurer. A minute of regret at the death of Mr. T. E. Newbigging, a former president of the society, was agreed to, and the secretary requested to send a letter of condolence to Mrs. Newbigging.

#### WORTHING HORTICULTURAL SOCIETY.

A MEETING of the above society was held at the Town Hall on Thursday, the 5th inst. The president (Alderman E. T. Cookney) took the chair, and before introducing the lecturer announced particulars of an outing which was being arranged for the second week in July. The programme includes a seventy-mile ride through beautiful Sussex scenery by motor-bus to Midhurst, a visit to Cowdray Park and West Dean Park, Chichester, returning via Goodwood and Arundel, where another stop will be made. The meeting having unanimously approved the proposal, the chairman introduced Mr. C. Short, late head-gardener to Colne Henty, who gave a brief but interesting paper on "Begonias, Cyclamens, and Gloxinias." The meeting concluded with a vote of thanks to the lecturer, the chairman, and to Mr. J. Stuart of Offington, who kindly exhibited collections of cut flowers.

#### WAKEFIELD FAYTON SOCIETY.

ON the 25th inst. this society will hold an exhibition of spring flowers, and Mr. Garude will give an essay on this subject. On May 5 Mr. W. Winter, Barnsley, will lecture on "The Narcissus Family for Forcing and Outdoor Culture." On May 12 "Triumphs of Horticulture and how They have been Secured" will be the subject of a lecture by Mr. E. Dewhirst, Shipley. Mr. John Twigg will give an essay on "Hardy Climbers" on May 19, and on May 26 the Rev. W. Mahon will talk about the "Sagacity and Morality of Plants."

#### READING AND DISTRICT GARDENERS' ASSOCIATION.

THE subject at the last fortnightly meeting of the above association was "Propagation by Layering," and this proved to be most useful and profitable. As was pointed out in the discussion, only a very small percentage of gardeners have during their career the opportunity of practically carrying out the propagation of climbing and hardy shrubs by layering. The subject was introduced by Mr. A. F. Bailey, of Leopold House Gardens, Reading, in a very short paper, but the briefness of this was amply compensated for by the practical demonstration given in layering. A splendid discussion followed, sustained by Messrs. Foster, Powell, E. J. Dore, Exeter, Townsend, Fry, Herridge, Chambers, D. Dore, Church, Winsor, Eggleston, Wicks, Barlett, Alexander, F. Barnes, Hinton, Carter, &c. There were two excellent exhibits. Mr. J. Lever, Hillside Gardens, staged some pretty plants of *Primula obconica*, each plant carrying trusses of flowers of large size. Mr. W. Barnes, Bear Wood Gardens, showed some splendid specimens of the following Apples: Annie Elizabeth, Lane's Prince Albert, Cox's Pomona, and Gascoyne's Scarlet Seedling. Several new members were elected.

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1 oz. Beet	1 pkt. " (Cabbage)
1 pkt. Broccoli	2 ozs. Mustard
1 pkt. Brussels Sprouts	1 oz. Onion
1 pkt. Broccoli (Early)	1 oz. Parsnip
1 pkt. " (Late)	1 pkt. Parsley
1 pkt. Cabbage	1 oz. Radish (Long)
1 pkt. " (Red)	1 oz. " (Turnip)
1 oz. Carrot (Early)	1 pkt. Savoy
1 oz. " (Late)	1 oz. Spinach
1 pkt. Cauliflower (Early)	1 pkt. Tomato
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1 oz. Beet	1 oz. Leek (Musselburgh)
1 pkt. Broccoli (Curled)	1 pkt. Lettuce (Cos)
1 pkt. Brussels Sprouts	1 pkt. " (Cabbage)
1 pkt. Broccoli (Early)	1 oz. Mustard
1 pkt. " (Late)	1 oz. Onion (W. Spanish)
1 pkt. Cabbage	1 pkt. Parsley
1 pkt. " (Red)	1 oz. Parsnip
1 oz. Carrot (Early)	2 ozs. Radish
1 oz. " (Late)	1 pkt. Savoy
1 pkt. Cauliflower (Early)	1 oz. Spinach (Summer)
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4 pkts. Choice Exhibition Peas	1 pkt. Celery, Giant Red
1 pkt. Broad Beans, Champion Long Pod	1 pkt. Leek
1 pkt. Runner Beans	2 pkts. Lettuce
1 pkt. Dwarf Beans	1 pkt. Onion, Ailsa Craig
1 pkt. Beet, Extra Select Dark Red	1 pkt. Parsnip, Hollow-crowned
1 pkt. Brussels Sprouts	1 pkt. Parsley, Moss Curled
3 pkts. Cabbage, Giant Red	2 pkts. Radish
1 pkt. Cauliflower	1 pkt. Tomato, Up-to-Date
1 pkt. Carrot, Long Scarlet Exhibition	1 oz. Turnip, New Model
1 pkt. Cucumber, Telegraph	1 pkt. " Golden Ball
	1 pkt. Veg. Marrow (Long Green)

### OUR 10/- BOX.

Another wonderful collection that cannot fail to be greatly appreciated.

5 pints Peas	1 pkt. Kale
1 pint Broad Beans	1 pkt. Leek
1 pint French Beans	2 pkts. Lettuce
1 pint Runner Beans	3 ozs. Mustard
1 oz. Beet	2 pkts. Onion
2 pkts. Broccoli	1 pkt. Parsley
1 pkt. Brussels Sprouts	1 pkt. Parsnip
3 pkts. Cabbage	2 ozs. Radish
2 pkts. Cauliflower	1 oz. Savoy
2 pkts. Carrot	2 ozs. Spinach
2 pkts. Celery	1 oz. Turnip
2 ozs. Cress	1 pkt. Tomato
2 pkts. Cucumber	1 pkt. Veg. Marrow
1 pkt. Endive	

### OUR 21/- BOX.

The contents of this box can be varied if desired to make up same value.

16 pints Peas (Early, Medium, and Late)	2 pkts. Gourd or Pumpkin
3 pints Broad Beans	4 pkts. Herbs (Sweet and Pot)
1 1/2 pint French Beans	1 pkt. Leek (Giant)
1 1/2 pint Runner Beans	3 pkts. Lettuce (Cos and Cabbage)
1 pkt. Beet (Dark-leaved)	6 ozs. Mustard (White)
1 pkt. Broccoli (Curled)	1 pkt. Melon (choice)
1 pkt. Brussels sprouts	4 ozs. Onion (White Spanish, etc.)
3 pkts. Broccoli (Early and Late)	1 oz. Parsley (Fine Curled)
3 ozs. Carrots (Intermediate, etc.)	2 ozs. Parsnip (Hollow-crowned)
2 pkts. Cauliflower (Choice)	4 ozs. Radish (Long and Turnip)
2 pkts. Celery (Red and White)	4 ozs. Spinach (Round and Prickly)
8 ozs. Cress (Plain and Curled)	1 oz. Savoy (Drumhead)
2 pkts. Cucumber (Ridge and Frame)	2 pkts. Tomato
1 pkt. Endive (Curled)	3 ozs. Turnip
	1 pkt. Veg. Marrow

### SPECIAL BOXES OF PEAS.

6 pints, selected ... 2/6	6 quarts, selected 4/9
12 " " " 4/9	12 " " " 9/-
18 " " " 7/-	18 " " " 13/-

The varieties comprise all the leading and newest sorts, and will be found so per cent. under usual price. We are anxious to get all readers of this paper to prove what thousands have already proved, viz., that "Our Seeds Grow." Send postcard for our New Seed List or New Chrysanthemum and Dahlia List, and same will be sent post free.

## EXTRAORDINARY OFFER OF CHRYSANTHEMUMS AND DAHLIAS.

We are making a most extraordinary offer, which we are confident will be received with approval and appreciation by all chrysanthemum and dahlia growers who wish to have the finest and newest varieties of these favourite flowers.

### CHRYSANTHEMUMS ! !

12 Grand new varieties for 6/-, carriage paid.  
Mrs. J. M. Darcy, Mrs. T. Dalton, Mrs. A. F. Seabrook, Walter Jinks, Mrs. J. Dunn, Old Gold, Embleme Poite vine, Mme. Oberthur, J. H. Silsbury, C. Montigny, Mrs. A. H. Lee, Marshal Oyama.

12 Splendid new Early-flowering varieties for 4/-, carriage paid.  
Beacon, Cyril Day, Eleanore, Freedom, Firefly, H. H. Crane, Mrs. A. Cookson, "Jimmie," Pride of Hayes, Perle Châlonaise, Blush Beauty, Champ. d'Or.

12 Choice Exhibition kinds, 3/-, carriage paid.  
12 Choice kinds for cutting for 2/6, carriage paid.  
12 Xmas Flowering varieties for 2/6, carriage paid.  
12 Lovely Single varieties for 2/6, carriage paid.  
25 Finest Out-door kinds for 3/-, carriage paid.  
All chrysanthemums rooted and properly named.

### Cactus Dahlias Given Away ! !

The following are Pot-roots, which produce earliest blooms, and may also be used for propagating:

12 Magnificent varieties, 7/6 carriage paid.  
To all purchasers of this selection a **FREE GIFT** is made of a root of the champion dark kind, W. Hopkins.

12 Choice varieties, 5/- carriage paid.  
With this selection a root of the splendid scarlet H. W. Sillem is offered as a **FREE GIFT**.

12 Older kinds, all good, 3/-, carriage paid.

See our previous offers  
OF

## CARNATIONS

At Half Price,  
ALSO

## SWEET PEAS & BULBS.

Send postcard for our New Seed List or New Chrysanthemum and Dahlia List, and same will be sent post free.

**FREDERICK CARTER  
& SONS,  
WOKING**

## ROYAL HORTICULTURAL SOCIETY.

THERE was a large and very beautiful display of flowers in the Horticultural Hall on Tuesday last, the 17th inst.

## FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. Joseph Cheal, Edwin Beckett, A. Dean, H. Parr, George Kell, S. Mortimer, John Lyne, F. Q. Lane, G. Reynolds, J. Willard, J. McIndoe, Owen Thomas, and H. Somers Rivers.

There were very few exhibits before this committee. The awards made were a cultural commendation to fruits of *Eriobotrya japonica*, shown by Messrs. Paul and Son, Cheshunt; and an award of merit to Broccoli Richmond Late White, shown by Messrs. Hurst and Sons, Houndsditch, and to Broccoli Late Queen, shown by Messrs. Sutton and Sons, Reading.

## ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Messrs. James O'Brien, H. Little, W. Boxall, Francis Welleley, E. Ashworth, F. Sander, Arthur Dye, W. Thompson, H. T. Pitt, J. Charlesworth, G. F. Moore, J. Wilson Potter, W. H. White, W. H. Young, H. G. Alexander, H. A. Tracy, W. A. Blinney, Norman Cookson, E. Brooman White, de B. Crawshaw, and H. Ballantine.

The collection of Orchids from H. T. Pitt, Esq., Stamford Hill, N., contained some very good *Odontoglossum*, the finest of all being *O. crispum* F. K. Sander. O. c. Britton's King, O. c. Maud Rockford, O. c. King Richard, and O. Adrians Mimmi were other noteworthy ones. *Cymbidium Lowie-oburnum* was represented by good plants, while *Epidendrum alatum*, *Zygopetalum Perreundii*, *Oncidium concolor*, and various *Cattleyas* and *Cypripediums* were noticeable. Silver-gilt Flora medal.

Messrs. Charlesworth and Co., Heston, Bradford, exhibited a showy group of well-flowered Orchids, the *Cattleyas* and *Odontoglossums* being splendid. *Cattleya Empress Frederick*, C. Triana Uplands variety, C. Mossie x digbyana, C. Schröder's Empress, *Laelio-Cattleya welshiana* magnifica, L. C. callistoglossa major, and several very handsome *Brasso-Cattleya* hybrids were very fine. *Odontoglossum heatonsensis*, *Odontoglossum Oculum*, O. exaltens, O. Rolfeae, O. c. Beyrodtii, *Zygopetalum Perreundii*, and others were represented by splendid flowers. Silver-gilt Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed *Dendrobium Fierardi* bearing a profusion of blooms; D. Boxall and D. Devonianum were also full of flower. *Cattleya Schröder's*, C. Intermedia alba, *Laelio-Cattleya highburvensis*, and other *Cattleyas* were included in Messrs. Low's group. Silver Flora medal.

Messrs. Sander and Sons, St. Albans exhibited some pretty forms of *Lycaete Skinneri*, *Laelia purpurata Schröder's* delicata (white, with pale lilac-purple lip), *Miltonia Rosellii* alba, *Oncidium illustris* (a newly introduced natural hybrid between *O. leucociliatum* and *O. maculatum*), L. C. Endymion, L. C. bipectolopis, *Cypripedium caudatum*, C. Maulei, *Aerides Micholitzii*, and other interesting Orchids. Silver Flora medal.

C. J. Lucas, Esq., Warnham Court, Horsham (gardener, Mr. Duncan), showed a pretty group of Orchids, consisting largely of *Odontoglossums*. Many handsome forms were included, e.g., O. exaltens, O. scoparium, O. crispum Eric, O. c. Geoffrey, O. triumphans latipetalum, and O. hystrix, *Cypripedium lawrenceanum* and others, together with *Cattleyas*, &c., made a bright and interesting group. Silver Flora medal.

Mr. James Cypher, Cheltenham, exhibited a few handsome *Miltonias* and *Odontoglossums*. Vote of thanks.

M. Ch. Vaylesteke, Loochristi, Belgium, exhibited some beautiful *Odontoglossums*.

Messrs. Stanley and Co., Southgate, N., showed one or two good forms of *Odontoglossum crispum*.

Mr. H. Whateley, The Nurseries, Kenilworth, showed a few finely-marked *Odontoglossums*.

*Cattleya Schröder's* F. J. O. Montagu was shown by F. J. O. Montagu, Esq., Melton Park, Doncaster (gardener, Mr. E. Hill).

## NEW ORCHIDS.

*Laelio-Brasso-Cattleya Veitchii*.—A large and handsome flower, obtained by intercrossing *Laelia purpurata* alba and *Brasso-Cattleya digbyana*-Mossie. The narrow sepals and broad wavy petals are soft rose, while the large lip is soft purple, the throat entrance being yellow, with a border of white. Shown by Messrs. James Veitch and Sons, Limited, Chelsea. First-class certificate.

*Brasso-Cattleya Mrs. Francis Welleley*.—An enormous flower, probably the largest hybrid *Cattleya* ever shown; from tip to tip of petals it measured fully 10 inches. The parents of this remarkable flower were *Cattleya luddemaniae* and *Brassavola digbyana*. The flower is coloured soft rose throughout; the throat is pale greenish yellow. Shown by F. Welleley, Esq., Westfield, Woking (gardener, Mr. Hopkins). First-class certificate.

*Odontoglossum amabile* var. *John Bradshaw*.—O. *crispum* Calypso and O. *harryano-crispum* were the parents of this hybrid. The white ground colour is heavily blotched with red-purple; the white shows through at the edges and on the lower half of the lip chiefly. From Messrs. Charlesworth and Co., Bradford. First-class certificate.

*Odontoglossum W. H. Hatcher*.—Another striking hybrid between O. *crispum*-*harryanum* and *Pescatorei* Charlesworth. The flower, which is of medium size, is heavily blotched with purple, the purple being tinged with red. The lip is broad, the lower half being white; the ends of sepals and petals are also white. Shown by Messrs. Charlesworth and Co., Heston, Bradford. First-class certificate.

*Cattleya callistoglossa* var. *The Dell*.—A large, spreading flower, and a handsome form of this *Cattleya*. The sepals and petals are rose and the lip is rich purple, while the throat is canary yellow. Shown by Baron Schröder, The

Dell, Egham (gardener, Mr. Ballantine). First-class certificate.

*Odontoglossum crispum Whateley*.—A very prettily-marked and distinct form. The white ground colour of the sepals, petals, and lip is thickly spotted with reddish-brown. The flower is of good form. Shown by Mr. H. Whateley, The Nurseries, Kenilworth. Award of merit.

*Laelio-Cattleya Baroness Schröder* var. *delicata*.—A beautiful flower; the sepals and petals are light soft rose, the lip rich yellow with rose-coloured frill. Shown by Major Rolfe, C.I.E., O.V.O. Award of merit.

## NARCISSUS COMMITTEE.

Present: Mr. H. B. May (chairman), Miss Willmott, Miss Curry, Messrs. W. Proppart, Walter T. Ware, W. A. Milner, Charles J. Digby, R. W. Wallace, W. W. Foster, R. P. D. Williams, Robert Sydenham, A. Kingamill, J. T. Bennett-Poë, W. F. M. Copeland, John Pope, Alex. M. Wilson, P. Rudolph Barr, J. Duncan Pearson, J. de Graaff, G. Reuth, G. W. Leek, the Rev. S. Eugene Bourne and E. P. Polway, and Charles H. Curtis (hon. secretary). A select lot of seedling Narcissus came from the Rev. G. Engleheart, in which the poetical forms were a striking feature. One in particular, No. 17, is a really marvellous flower of great size, substance, and purity.

Choice Daffodils were shown by W. E. Darlington, Esq., Potter's Bar (gardener, Mr. Bignall).

Among the more select exhibits was that from Mr. G. P. Haydon, Canterbury, whose flowers were in every way superb. There were many novelties in this group, one of the best, Pearl of Kent, is given under "New Daffodils."

Mr. W. Waite, St. Asaph, also showed a good lot of Daffodils, with a centre bowl of King Alfred.

Messrs. Barr and Son, Covent Garden, showed a general assortment of good sorts and a superb set of seedling novelties. Monarch, Weardale, Peter Barr, and others were all fine. Silver Flora medal.

Mr. Alex. M. Wilson, Spilaby, Lincoln, showed many fine things, Concord (a rich incomparabilis), White Lady, Homespun, and Strongbow, with Weardale Perfection, being very fine. Silver Flora medal.

Miss Willmott, V.M.H., exhibited N. Duchess of Wellington, a small white Ajax, very refined.

A silver Flora medal was awarded to Messrs. J. R. Pearson and Sons, Loddham, Nottingham, for a large group of Daffodils that comprised many lovely sorts. Among these we might mention Van Waveren's Giant, Florence Pearson (white trumpet), Harvina (white, with large flat yellow cup with orange rim), Homespun (a fine incomparabilis), Crescent (poetical), Scarlett (with glowing red cup), Seagull (with broad perianth and lemon yellow cup).

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a handsome group of Daffodils in numerous varieties. Waveren's Giant, President Veitcholt, King Alfred, Shakespeare, and L'Innocence (small white trumpet), and many other sorts were well shown.

Messrs. Pope and Sons, King's Norton, exhibited some beautiful Daffodils. Will Scarlet (with large rich orange red cup), Ploetea (poetical), Queen Alexandra (poetical), Bonifacio (Ajax), Mrs. Galton (white trumpet), Mrs. Betteridge (white trumpet), and other fine sorts were to be seen. Silver Bankian medal.

A silver Flora medal was awarded to Messrs. R. H. Bath, Limited, Wisbech, for a grand lot of flowers. Weardale Perfection was remarkably good; so, too, were King's Norton King Alfred, Mme. Plomp, and other trumpets. Lady Margaret Boscawen (with broad, short, yellow trumpet), Luiworth (with frilled yellow cup tipped with orange), Leedsell White Lady, Eyebright (poetical), Gloria Mundi, Virgil (poetical), Mrs. J. B. M. Camm (white trumpet), and others were splendid.

Miss Curry, The Warren Gardens, Lismore, Ireland, exhibited a beautiful lot of Narcissus. The poetical and other Parvi-Coronati forms were lovely. The Geraldine (with glowing red cup), Incognita, Egret (with lemon-yellow cup), Duke of Leinster (with large shallow orange cup), Child of Mist (beautiful small white trumpet), Mme. de Graaff, Triandrus calathinus, and many others were much admired. Silver Flora medal.

Mr. G. Reuth, Keston, Kent, exhibited a large collection of Daffodils and spring flowers. Mrs. J. B. M. Camm, Victoria, Mrs. Pope, C. J. Brookhouse, Beauty, Sir Watkin, and other well-known Daffodils were included. Many interesting alpine flowers and some fine trusses of *Rhododendrons* were also shown.

Messrs. Hogg and Robertson, Mary Street, Dublin, showed a representative collection of Daffodils that included many fine sorts as, e.g., Mrs. Betteridge, Mrs. F. W. Moore (white trumpet), Glory of Leiden, Waterwitch, Flamingo, Duchess of Westminster, White Wings, Cassandra, Weardale Perfection, and others. Silver Bankian medal.

A silver Bankian medal was awarded to Sir Jocelyn Gore-Booth, Bart., Lisadell, Sligo for a collection of Daffodils in many beautiful sorts. James Walker (bicolor Ajax), Glory of Leiden, Mme. de Graaff, Gloria Mundi, Engleheart's Incognita, Nelson's White Wings, albicans (white trumpet), and Leedsell Gem (white) were a few of them.

Sir Edmund Loder, Bart., Horsham, exhibited a large collection of Daffodils and other flowers gathered in the open, including *Rhododendrons* and *Camellias*.

Mr. James Douglas, Great Bookham, showed some beautiful Daffodils, Elaine, Lady of the Lake, Diana, and others.

## NEW DAFFODILS.

*Narcissus warleyensis*.—A giant soft yellow Ajax of enormous proportions. From Miss Willmott, V.M.H., Great Warley.

*N. odoratus rugulosus maximus*.—A rich, yellow self of perfect form, and a decided gain. From Messrs. Barr and Sons, Covent Garden.

*N. Pearl of Kent*.—A giant cernuus form obtained by crossing Monarch and Mme. de Graaff. It is pure white, and the most distinct novelty shown. From Mr. J. Haydon, Canterbury.

## NEW PLANTS (FLORAL COMMITTEE).

*Saxifraga oppositifolia coccinea*.—This is a very rich deeply-coloured form of typical *oppositifolia*, and as such is a welcome addition to these plants. From Messrs. J. Beckhous and Son, York. Award of merit.

*Mertensia primuloides*.—A very beautiful plant, growing about 6 inches high, with purple-violet, white-eyed blossoms in clusters. From Messrs. W. Cutbush and Son, Highgate, N. Award of merit.

*Caltha polypetalia*.—A large and richly-coloured form of the "King Cup," which is handsome in leaf and flower, the latter of a rich yellow and nearly 3 inches across. From Messrs. Wallace, Colchester, and Sir Edmund Loder, Bart., Hoveham. Award of merit.

*Rhododendron Gills' Triumph*.—A rich and brilliantly-coloured variety with immense heads of blossoms. From Mr. R. Gill, Tremough Gardens. Award of merit.

\* The report of the Floral Committee is unavoidably held over until next week.

## NATIONAL AURICULA AND PRIMULA SOCIETY.

THE southern section of this society held its annual exhibition on Tuesday last, the 17th inst., in connexion with the fortnightly show of the Royal Horticultural Society. The Polyanthus, Primrose, and Auricula added bright and varied colouring to the display.

Mr. J. Douglas, Great Bookham, was first for twenty-four show Auriculas with a beautiful lot, Mr. W. B. Cranfield, Enfield, being second, and Mr. J. H. Wilson, Sheffield, third.

Mr. Douglas was also first for twelve show Auriculas, Mr. Charles Turner, Slough, being second, and Mr. Cranfield third.

For six show Auriculas, Mr. W. M. Shipman, Altrincham, won the first prize, Miss Willmott, Great Warley (gardener, Mr. J. Orton), being second, and Mr. S. T. Healey, Leicester, third.

The first prize for four show Auriculas was won by Mr. J. T. Bennett-Poë, Ashley Place, S.W., Mr. Shipman being second, and Mr. F. W. Price third.

Mr. Lufford, Sutton Colbreock, won the first prize for four show Auriculas (open to those who have never won a prize), Miss Willmott being second.

For a single green-edged, Messrs. Phillips and Taylor were first with Mrs. Henwood; for grey-edged, first, Miss Willmott with Perseverance; for a white-edged, first, Mr. Shipman with Acme; and for a self-coloured flower Miss Willmott was first with Mrs. Potts.

Mr. James Douglas, Great Bookham, was first for twenty-four alpine Auriculas with a very beautiful lot, Mr. Martin E. Smith being second, and Messrs. Phillips and Taylor, Bracknell, being third.

The first prize for twelve alpine Auriculas was also won by Mr. Douglas, Messrs. Phillips and Taylor being second, and Mr. Martin E. Smith third.

For six alpine Auriculas, Mr. J. W. Enoton, Twyford, was first, Mr. Price, Beckenham, second, and Mr. Healey, Leicester, third. Mr. Price was first for four alpine Auriculas.

A bronze medal presented by Mr. Douglas to the second prize winner for six plants of alpine Auriculas raised from seed given by Mr. Douglas, was awarded to Mr. C. G. Buller, New Cross, the exhibit apparently not being considered worth the first prize—a silver medal.

Mr. Douglas, Great Bookham, was first with twelve fancy Auriculas, Mr. Turner, Slough, being second, and Mr. Cranfield third.

The first prize for a group of Primulas and Auriculas was won by Mr. Douglas with a charming lot.

Martin E. Smith, Esq., Hayes, Kent (gardener, Mr. Bick), was first for twelve Primula species or distinct varieties.

Mr. P. D. Williams, St. Keverne, was first for a single specimen Polyanthus, and Mr. C. Turner, Slough, first for gold-laced Polyanthus.

Mr. J. T. Bennett-Poë was easily first for a specimen of alpine Auricula, gold centre; and Mr. A. J. Cook was first for an alpine Auricula with white or cream centre.

The premier show Auricula was Mrs. Henwood, exhibited by Messrs. Phillips and Taylor, Bracknell. The premier alpine was Majestic, also exhibited by Messrs. Phillips and Taylor.

For twelve pots of Primroses Mr. James Douglas was first, and also for twelve pots of Polyanthus, with a splendid lot, the flowers showing an excellent strain, Mr. Martin E. Smith, Hayes, Kent, being second in the last class.

For a group of Primroses and Polyanthus Mr. S. Mortimer, Farnham, Surrey, was first with a beautiful lot, Mr. Martin E. Smith being second, and Mr. W. Shipman third.

## DUNDEE HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of this association was held in the Technical Institute, Dundee, on the evening of the 3rd inst. There was a good attendance, presided over by Mr. William Grant. The subject of the lecture was "Hints on Cacti," and it was in the capable hands of Mr. E. Birse, 28, Carmichael Street, Dundee. The next lecture on the programme for the season is upon "The Properties of British-grown Apples and Pears." It will be contributed by Mr. James Hughes, Loyal Gardens, Ayr.

\* The Yearly Subscription to THE GARDEN is: Ireland, 6s. 6d.; Foreign, 8s. 6d.

# THE GARDEN.

No. 1797.—VOL. LXIX.

APRIL 28, 1906.

## SALADS.

FRENCH *versus* ENGLISH.

**E**ARLY last year we gave a brief account of a visit paid to some French market gardens at Vitry on January 14, 1905, by upwards of twenty Evesham gardeners. The special object the party had in view was to investigate the French methods of growing winter Lettuce, which has been imported largely into this country for many years, and for which remunerative prices are always obtainable. The visit evidently proved instructive, and the visitors praised highly the methods and results which they saw. But doubts were expressed by some of the possibility of attaining the same success in England by adopting the French system, in consequence, as they thought, of the English gardener being much handicapped in winter by adverse weather conditions, such as more frost, less sunshine, and more frequent and denser fogs. This would have throttled the idea of its adoption in this country had it not been for the enterprise of the Avon Orchard Company. Mr. John Idiens of that firm was convinced that Evesham gardeners could do what the gardeners of Vitry were doing, and argued that if it was possible for them to send large quantities of these Lettuces to England, it would be more profitable for Evesham growers, who have the advantage of much cheaper freight, the rate to London for Lettuce, &c., representing a saving of 70 per cent. to the English grower. As a result, this company engaged a skilled French gardener, who laid out gardens on the French principle on the slopes of Bengeworth, near Evesham Mill.

More than one year's trial is necessary to test the success of the scheme, as the soil cannot be brought to the highest condition of fertility necessary for the perfect growth of these Lettuces in winter in less than three or four years; but we are told the venture promises to be a great success. It can be safely stated that it has already been proved that crops of these Lettuces, and also of other early vegetables, can be grown in winter at Evesham as successfully as they are round Paris. It is possible that the knowledge of this fact may lead to important developments and provide many gardeners with profitable occupation in winter, and bring about, at the

same time, greatly enhanced prosperity to the gardeners of the Vale of Evesham, which they well deserve for the public spirit and enterprise shown by them.

The French garden at Bengeworth is similar in appearance to those at Vitry. On a slope of about three-quarters of an acre are nearly 300 frame-lights and large numbers of bell-glasses (or *cloches*, as they are usually called). These small lights are about 3 feet square, resting on boards, on edge, about 1 foot above the soil. The price of these frames, with glass complete, is from 6s. to 8s. each, a run of 100 feet costing about £6; the bell-glasses cost 1s. 4½d. each.

The chief principle underlying this successful French system is undoubtedly the liberal use made of fermenting material in the way of fresh manure for making up the beds on which these frames lie, and the application of well-rotted manure in abundance to the soil in which the plants grow. These French gardens range in extent from one to ten acres only, and they are mostly covered with these small glass frames or by *cloches*, which are placed so close together as barely to leave room for a man to walk between.

As the slight bottom heat from the fermenting material wanes, linings of the same material are placed between the frames, filling up the pathways, and so continuing to stimulate growth. The land in these gardens is estimated of so much value that every foot of space is thus utilised, and express culture is the order of the day all the year round, as many as five or six distinct crops being grown in the course of the year, including Lettuce, Radish, Cauliflowers, Tomatoes, Cucumbers, and Melons. All are grown without fire-heat, and the crops are changed as frequently as possible. The grower, from experience, can calculate the time each crop takes to grow, and as soon as it is over another is ready to take its place.

We learn from a contemporary that the French gardener at Evesham is inclined to smile at the idea of growing Tomatoes and Cucumbers in heated glass houses, claiming that he can obtain as good or nearly as good results in this new garden in Worcestershire, at much less cost, stating in proof that his Tomatoes thus grown last year were making 4½d. per lb. when the best grown in houses were only making 5d. It was pointed out to the French gardener that in France

the Lettuces were apt to damp off in winter, and he was asked if conditions in this respect were better or worse at Evesham. He replied that the plant behaved as well or better here in that respect than it did in France. The climate, he said, was much about the same, only there was not quite so much sun here. Some of the winter Lettuce then being marketed by him he considered to be as good as the best grown in France at the same time of the year.

Thus we have here a practical demonstration that in many parts of England, where manure is plentiful and cheap as it is in the neighbourhood of London and other large towns, and the supply of water abundant, we have no occasion to go to France for our winter salads, if only English gardeners will wake up to the opportunities at their doors.

## DAFFODIL YELLOW STRIPE DISEASE.

WITH regard to this malady, I venture to make a suggestion which I think may possibly be of use. I believe the stripe may be a result of over-division of bulbs. I have never seen it in old-established clumps. I rarely see it among first-sized bulbs, or even among first-sized offsets. I once had a stock of which the foliage was absolutely perfect as to first and second-sized bulbs, but the third and fourth sizes were streaky. They were replanted to grow on, and next year there was not a trace of streakiness among them. Division of bulbs, except when it occurs by a natural falling asunder of the parts, produces some bleeding, and it appears to me possible that the smaller portion of the divided bulb does not retain sufficient colouring matter.

I had an experience this year which appears to bear out this suggestion as to the cause of yellow stripe. I planted last year two bulbs and five pieces sent to me by a friend. The bulbs were fine, but I thought the five offsets had been unskilfully removed. The two bulbs came up this spring with very fine foliage, but the foliage of the five offsets came up, not even streaky, but a creamy white. When I noticed this it was 3 inches or 4 inches high. I at once thought these offsets were the victims of basal rot, and began a *post-mortem* with my trowel; but, to my surprise, I found the bulbs had a fine and adequate root-growth, so I carefully replanted them. The foliage is now fully grown, and rather streaky, but I have no doubt it will be perfectly right next year. I think my



suggestion may account for the occurrence, here and there, of a plant with streaky foliage among a lot of others with perfect foliage. The bulb may have been roughly shorn of its offsets, and bled to the extent of losing too much of its colour-producing constituents. I do not believe the thing is a disease at all.

We have all seen Daffodils starved until their foliage was as thin as a rush, but there was no streakiness. I think also it may sometimes occur from bleeding, caused by trimming off the rootlets of Daffodil bulbs before they have completely dried. I do not believe it arises from unsuitable soil, or bad drainage, these bring basal rot, or the spots, which I think must be the Hyacinth bacteriosis. I imagine the yellow stripe is a punishment for the greed of growers, and the clumsiness of the hired bulb hand. If this explanation proves of any service to my friend, Mr. A. R. Goodwin, I am sure he will see, in due course, that a prize comes in my direction.

FANNY W. CURREY.

The Warren Gardens, Daffodil Nurseries, Lismore, Ireland

## PRIZES FOR GARDENERS.

### AWARDS IN THE MARCH COMPETITION.

#### CROPPING A SMALL GARDEN.

A LARGE number of competitors entered for the prizes offered for the best essay on the above subject. Generally speaking the papers revealed the fact that the writers possessed a sound and well-grounded knowledge of the subject. Where many have failed is in not having expressed their thoughts clearly. It should be remembered that the value of these essays to us, and to our readers, lies in their teaching capacity. General statements are of little worth. It is proved facts in matters of culture that are desired, something that readers can take hold of and remember afterwards. For instance, it is of little or no use to say to a beginner in gardening that he must manure liberally for a certain crop—he will not understand what is meant; but if he is told to apply five or six barrow-loads to the rod, then he will understand. It is always the well-thought-out and the well-planned essay that will carry the greatest weight.

The first prize of four guineas is awarded to W. H. Morton, St. James's Crescent, Gloucester; the second prize of two guineas to G. H. Webster, Oak Cottage, Woolton, Liverpool; the third prize of one guinea to Herbert Davies, Railway Cottages, Horton, near Chester; and the fourth prize of half-a-guinea to George Waller, Cook Crow Hill, Ditton Hill, Surbiton.

Many other good papers were sent in. Those from the following are commended: Robert E. Clapham, Copt Hewick Hall Gardens, Ripon; A. Sturt, Round Oak Gardens, Englefield Green, Surrey; John Kershaw, Penny Meadow, Ashton-under-Lyne; J. C. Armiger, Foulden, Northwold, Stoke Ferry, Norfolk; W. H. Scott, The Hermitage, Twyford, Berks; George Duncan, The Gardens, Merstham House, Merstham; J. F. Coleman, The Elms, Yalding, Kent; Edgar T. Kirtland, The Hermitage Gardens, Walton-on-the-Hill, Epsom; H. Wilton, Jerviston House, Motherwell, Lanarkshire; J. Carter Wadd, The Gardener's Lodge, Knighton Fields, Leicester; Joseph Smith, Vine Cottages, Vicarage Lane, Bowdon, Cheshire; W. Waite, Batterknowle Gardens, Melrose Road, Southfields, S.W.; R. Y. Andrews, Morhanger Park, Sandy, Bedfordshire; and A. Lampard, Kingwood, Tanbridge Wells, Kent.

### FORTHCOMING EVENTS.

May 1.—Royal Horticultural Society's Meeting.  
May 5.—Special Show of Seedling Auriculas, Irlingham Botanic Gardens.

## RIVIERA NOTES.

AMONG low-growing shrubs indispensable for spring bloom nothing is prettier than the comparatively new

*LOBOPETALUM CHINENSES*.—If only it grew more vigorously and flowered less freely it would be everybody's plant, but perhaps a moister and cooler climate is needed for its fullest development. It is one of the best and prettiest shrubs for a somewhat shaded and moist position, and prefers an admixture of leaf-mould or peat with the soil it grows in. The dainty *Tulipa clusiana* (Painted Ladies) flowers at the same time, and the combination of the two is remarkably engaging.

*KENNEDYA COMPTONIANA*, which was out down to the ground a year ago, has grown and flowered all the freer for its severe pruning, and in one place, where it has clambered high among the growths of the common Golden Bamboo, the hanging masses of purple Pea flowers show to great advantage among the bright green and gold of the Bamboo. The habit of French gardeners to isolate everything on grass lawns prevents this lovely creeper being grown in most gardens; more's the pity! Each year the vigour of

*IRIS BUCARICA* increases, and the quantity of strong leafy stems with a flower at the axil of each leaf is an annual surprise. A strong clump of this hardy Iris should be found in each amateur's garden. So far, I am not in love with the hybrid Juno or with the hybrid *Oncocyclus* Irises; for one reason or another they are no improvement in beauty on the types, but in Northern gardens they may be more vigorous. Here, where all grow well if treated liberally in winter, the species please me most. Someone else will, I hope, give their views on the subject, as I may be prejudiced. One of the pleasant surprises of this very sunny winter has been the growth and size of flower of

*PETUNIAS* against a south wall. An Indian friend mentioned that Petunias climbed to a height of 20 feet or more in India, and as I happened to have some at the foot of a south wall, I trained them up it last autumn as suggested, and the beauty of flower and their vigour all the winter are quite an object-lesson. The scent of the Petunias on a sunny morning is a feast to the nose, and their rich colour to the eye. The small-flowered dwarf Petunias are, of course, of less value. It is the grandiflora strain that really requires a wall to show off its beauty, as the flowers are easily spoilt by rain, or even by a cold night, such as has just visited us in this last week of March, and seriously damaged the Rose buds and fruit blossoms. Apparently there are two forms of the

*JASMINUM PRIMULINUM*, one with practically double flowers that make a rosette, and another form with much larger blossoms that have only an odd petal extra here and there. Whether they are seminal forms, or one is a sport from the other, there is a great difference in the garden; the large-flowered single flower is so much preferable in point of beauty, while the plant is much more evergreen and less rampant than the double form. Until I grew the two side by side I did not realise how superior and how distinct the single form is. It is not so much of a winter flower as the double form.

E. H. WOODALL.

## NOTES OF THE WEEK.

**Easter visitors to Kew.**—The number of visitors to the gardens on Easter Monday was 91,000. On Good Friday the number was 39,000.

**Fruit prospects.**—The prospect of a fine crop of fruit at this time of year has not been so good with us for some years. The cold winds of March kept back the buds, and at the present date (12th inst.) the Plums and Damsons are one beautiful sheet of bloom. Pears are opening. Some of the earlier flowered Cherries are open; Gooseberries and Red Currants look well. Black

Currants, unfortunately, are badly affected with mite in most places; some are clean and look well. All kinds of Apples look very promising for a full crop at present, but rain is wanted badly.—J. WILLIAMS, *The Gardens, Whitbourne Hall, Worcester.*

**Century-old Gentians.**—Gentiana acaulis has been growing here for a long time in two large Box-edged beds, each 10 feet by 4 feet, in full sunshine. The level of the beds is slightly lower than the surrounding ground. I do not know how long these Gentians have been in these beds, probably more than a century. My grandfather knew them as the old "Gentian beds" in 1828, so I may be pardoned my veneration for them, for I represent the third generation of gardeners in the fourth generation of employers on this estate.—G. D. DAVISON, *Westwick Gardens, Norwich.*

**A good late Apple.**—Mr. Pearson's article on late Apples is interesting, especially to people like myself who live in a peculiarly bad climate. It cheers one to find that many failures are due to this, as no care or skill can fight successfully such an enemy, so there is no use grumbling. The three Apples he especially praises, viz., Bramley's, Newton Wonder, and Damelow's, are over with me, not keeping really well later than the beginning of March. Which is, then, the best keeper? I have long been a votary of *clémentis in eremo*, but, at the risk of wearying your readers, I must put in a plea again for the first place for Hanwell Souring, of which I send you a sample for trial. I think it has every merit (at least, in this climate; perhaps down South it may be mealy. I do not know). It has one of the handsomest flowers of all Apples; it is a constant and heavy cropper, and keeps more or less well (with me) till the beginning of June, and often till the beginning of July. I never see it mentioned in any list, and take it into my head that perhaps it is not much known in England.—DENNIS KNOX, *Virginia Rectory, County Down.* [The fruits sent by our correspondent were in good condition, and must be most welcome so late in the season. The flavour is distinct and acid, and agreeable to those who care for an Apple of this sort.—ED.]

**Federation of gardeners' societies.**—It will be very interesting to learn from Mr. M. Boshier of Croydon, who recently made an appeal in THE GARDEN for some form of federation of gardeners' improvement societies, as to the result of that appeal. There are so many of these societies in the kingdom that their membership must run into several thousands, and any effort to bring all these bodies, established as they are for exactly similar purposes, into close and friendly touch with each other through some form of federation, merits the warmest support. The proposed federation and the various societies' objects have neither connexion with or in any way clash with those of the National Gardeners' Association. I would suggest, as helping to promote the federation, that Mr. Boshier invited representatives of all those societies he has replied from, or of whose secretaries he is familiar with, to hold a meeting at some suitable place in London on the second day of the Temple Flower Show. At that meeting ideas as to the objects of such federation could be exchanged, a circular letter embodying these objects be drafted, printed, and issued to every known society in the kingdom. In that way it might be possible to make the federation an active reality. Besides keeping a register of all gardeners' improvement societies, lists of interchangeable speakers or lecturers might be secured, an annual conference might be held by representatives, and many subjects of great interest and importance discussed. Having regard to the genuinely professional aims and objects of these societies there can be no doubt that many gardeners' employers would accord hearty support to the federation.—A. D.

**A note from Devon.**—You mention in *THE GARDEN* of the 31st ult. you can find no reference to Mallee Scrub (this in answer to an enquiry). Mallee Scrub is *Eucalyptus dumosa*, except in Victoria, where it is the *Eucalyptus oleosa*. You also have further reference to blue Hydrangeas. The ground here is saturated with iron, and the Hydrangeas vary in colour, but I have satisfied an idea which occurred to me, and have done so after much watching of various plants, that the blue ones are those which get no moisture, and are practically roasted alive, otherwise, are growing in what is an imitation of a high road. As regards *Narcissus cyclamineus*, it will grow anywhere if left alone, and the soil is like a gravel walk. You refer to *Prunus Mume*, and say "few specimens exist of any considerable size, the largest being probably not more than fourteen or fifteen years old." My plant is 9 inches diameter in the stem, and was that size when I bought it thirteen years ago; it was then reputed to be seventy-five years old, and it certainly looks forty years old.—A. S. FORD, *Lynmouth, South Devon*.

**Saxifraga scardica.**—Since its introduction some three or four years ago, this plant has rapidly proved its value both for the open rock garden and for use in the alpine house. It is very free-flowering, coming into bloom early in March, and forming a succession to the better-known *S. bursariensis*. Unlike the latter, it is not affected by the winter damp outside, and, coming into flower rather later, is not so liable to injury as that plant. It forms very compact tufts in the way of *S. marginata* and *S. rostellata*, being closely allied to the latter plant, and only differing from it botanically in the shape of the sepals and other minor points. The inflorescences are about 3 inches high, and the strongest usually have four or five flowers on each stem, while they are of good substance and last for a long time in perfection. This plant does well in a compost of sandy loam and broken limestone, with plenty of drainage in the bottom of the pan. Plenty of moisture is also essential while growing, and, if the pans are not plunged, shading to a certain extent is necessary from the midday sun. *S. scardica* is found at a high elevation on Mount Scardus, from which it takes its name.—W. IRVING.

**A Surrey bulb farm.**—In Messrs. Barr and Son's nurseries at Long Ditton, near Surbiton, several acres are planted with Daffodils and Tulips, and at the present time the quarters devoted to these bulbs are masses of rich colouring and delicate greenery, making a spring picture that is worth journeying far to see. Many old favourite Daffodils are grown by the thousand, and it is chiefly to these and the Tulips that the Daffodil nurseries owe their beauty now. We were, however, more interested in the newer and choicer seedlings which are growing in open frames and other more or less sheltered quarters. Undoubtedly the most remarkable Daffodil we saw was Peter Barr, the finest and largest of white trumpets. This variety is most vigorous; one bulb often produces three, and not infrequently four, flowers. Lady Janet Jodrell is a charming Leidsi form with white perianth and cream-white cup. Major Spurrell (poeticus) has a canary-yellow cup tipped with red, and large and broad perianth segments, a beautiful flower. Mrs. Betteridge is a small pure white trumpet, having a beautifully frilled edge, very free and strong, with bluish foliage. C. H. Curtis (Ajax) will doubtless become a popular Daffodil; it has a large, bold, canary-yellow trumpet and lighter perianth. Beacon is a charming Burbidgei form, with broad cream-white perianth segments and orange-red cup, a most effective flower. Strongbow (Nelsoni), white perianth and rich yellow cup; Hon. Mrs. Jocelyn, rich yellow Ajax; Mrs. George Barr, a beautiful small, white Ajax, the long, narrow trumpet being most distinct; and Margaret

Berkley, a medium-sized yellow Ajax of exceptionally good form, are all especially fine sorts. We were shown numerous seedlings yet unnamed in great variety of form and colouring. Among some of the better-known and popular sorts growing in the open fields are Gloria Mundi, best of the red-cupped sorts; Ariadne (Leidsi), remarkable for its broad cup; Lord Roberts, a glorified Emperor; Lucifer, with rich orange cup; Victoria, the finest trumpet for forcing; Alice Knights, a white trumpet, and one of the very earliest Daffodils to flower; and Leidsi White Lady, one of the freest flowering, five, six, and sometimes seven flowers being produced by one bulb. Those who would see all that is best among Daffodils, and in such quantities as to make the nursery a field of flowers, painting the brown land with gorgeous and delicate shades of colour, should go to Surbiton and see several acres of Barr's Daffodils and Tulips.

**Daffodils at Lissadell.**—During the past three or four years a good number of our readers must have heard of Lissadell, but there are doubtless many who as yet are unaware of the steady progress in agriculture, horticulture, &c., which is being made there. To the latter a

of the larger (trumpet) bulbs to about 120,000 of the small *Poeticus ornatus* bulb, so that the stock of bulbs at Lissadell must run somewhere into the millions.—*The Irish Homestead*.

## NOTES ON LILIES.

### HINTS ON CULTIVATION.

**T**HE failures and successes in Lily culture, recorded by Captain Reid in *THE GARDEN* some time ago, would appear by no means fairly balanced; the former would deter many from making any attempt to grow these flowers in the open-air at all. But it is not, to my mind, quite clear why some of the sorts named have failed so completely, and, possibly, a little more light could yet be thrown on the subject. In certain instances the cause of the failure would appear fairly obvious, as e.g., the case of *L. Parryi*. I have not the least doubt that the species in question failed chiefly from lack of good drainage. In such instances lifting and thoroughly washing the bulbs in water and then giving a few days on a shelf so as to dry them



SAXIFRAGA SCARDICA GROWN IN THE ALPINE HOUSE AT Kew.

few words of introduction may not, perhaps, come amiss. Lissadell is the residence of Sir Joselyn Gore-Booth, and is delightfully situated about ten miles north of Sligo, on the borders of Sligo Bay, its ancient name being "Lissadil," meaning in Irish, "The Fort of the Blind Man." Since 1900 Sir Joselyn (who in that year succeeded to the property) has quietly, steadily, and persistently endeavoured to develop the natural resources of Lissadell. While developments were started mainly with a view of finding permanent employment for the surrounding people, it was recognised that this could only be done by running the different departments on a purely business and commercial basis, and the head of each department is a specialist. When we state that several hundred people find employment there, and that the wages and salaries bill alone amounts at present to £5,000 per annum, our readers will understand the industrial progress which has already been made. The bulb farm is down close to the seashore, being only separated from it by trees, which shelter the flowers from the Atlantic gales. A regular business is done in out Daffodils from the bulb farm, spring vans being used to run these into Sligo for despatch to market, while boxes are daily despatched by post. An enormous amount of bulbs are grown on a single statute acre, varying from, say, 60,000

out, is the best thing to do. When replanting, the bulbs should be embedded in very sharp sand or grit, and for this species a deep bed of soil on a bank side or a little slope, where *Daphne Cneorum* could be planted as a surface plant, would make quite a congenial spot. This species had evidently been a complete success hitherto, and the time to act was at the first sign of failing health.

**L. auratum.**—The failure of *L. auratum*, provided imported bulbs are planted, is not surprising, the wholesale failure being due to the manner in which the bulbs are treated prior to packing in Japan. Bereft of every root-fibre, new and old alike, is it surprising that the bulbs, imprisoned for weeks, should become diseased and rot when planted? Why we cannot grow *L. auratum* continuously in British gardens is because the bulbs never, or very rarely, produce a new basal root after planting, and the bulbs are, therefore, foredoomed to failure. By planting them very deeply, however, say 8 inches or 9 inches, and so encouraging a greater development of stem-roots, we can contribute to a flowering, and frequently a better flowering, in the first year. The home-raised seedlings, with their basal roots intact and uninjured, should go a long way, if not, indeed, the whole way, to making this species a permanent success in British gardens.

**L. BROWNII**—One notes with pleasure the improvement recorded in the case of *L. Brownii*, which does not carry more than two or three blooms on a stem usually. It is probably one of the most satisfactory of all Lilies when in good condition. *L. B. leucanthum* is full of promise. The wealth of axillary bulbils in this Lily should prove a great attraction to those in whose gardens it is a success. It is a most encouraging report which appears on page 37 concerning this. I hope those who endeavour to raise stock of this Lily from the bulbils will not weaken them in their infancy by attempting to grow this quite hardy Lily in a heated structure. I think that *L. B. Chloraster* is as superior to *L. Brownii* as it is rare and difficult to obtain. The stems of this rise 4 feet to 5 feet high. No axillary bulbils are produced. Strong bulbs produce four magnificent fragrant flowers. The buds, but very little coloured externally, are about 6 inches long before expansion. Internally the flowers are white, mellowing into deep cream or yellow. Each year this grand Lily springs from a jungle of *Montbretias*, choice *Narcissi*, *Incarvilleas*, &c. Each year, too, the stems attain a greater height, but as yet no more than four flowers have been produced. I am a firm believer in root companionship for most Lilies.

**STEM-ROOTING LILIES**.—Other items of importance to Lilies of the stem-rooting varieties are deep planting and heavy manuring. All the coloured forms of *L. speciosum* are gross feeders, and should never be planted less than 6 inches, and are much better at 8 inches deep. In light loamy soils particularly it is not easy to treat these too generously. *L. s. Melpomene* is a grand Lily, and of this it is not difficult to obtain home-grown bulbs with the basal roots intact. Indeed, so far as is possible, this latter condition should be aimed at, it is a valuable stepping-stone to success. So far as the white varieties of *L. speciosum* are concerned the same remark applies, for the imported and rootless bulbs of these often fail. In 1880 the late Mr. G. F. Wilson grew *L. s. album Krætzerei* and the yellow-anthered *L. s. a. novum* perfectly in a much depressed bed, amid the shade of Pines, in his Weybridge garden. Much peat was used, and the plants reached nearly 7 feet high. In the district named I grew the same things with the manure treatment I have mentioned. That a few bulbs may fail there is no doubt, but the failure of the few does not of necessity render these very desirable kinds unreliable. It is not so long ago that a well-known writer in the *Gardeners' Chronicle* referred to the complete success of these very sorts in his garden in Scotland, a success attributed, I believe, to the comparatively wet season experienced. In the same year the constant wet and sunless weather experienced in the Thames Valley were together responsible for many buds and blossoms rotting away. Thus it would appear that altitude plays a most important part in success or failure.

**THE PANTHER LILY** (*L. pardalinum*) is usually a very easy Lily to deal with, if slow to establish. I have known complete batches of this to remain dormant a whole year, afterwards growing away with the greatest vigour. Large bulbs are required, as small bulbs take some time to develop. Peat and moisture are the best for this and for *superbum* and others. It is best when in comparative shade, and will often reach 8 feet in height. The continued success of *L. Hansoni* is most encouraging.

**L. HENRYI** should be planted among Bamboos, Acers, or dwarf

*Ribes*. From its large bulb and strong growth one naturally looks for a flower of larger size than it generally bears. The plants named above provide a support for the distinctly leaning stems, and make the surroundings agreeable and natural. This Lily deserves to be grown freely, and as it provides a good crop of axillary bulbils stock may soon be increased. Plant in a deep bed of peat and loam, lightly manuring the soil low down below the bulbs. As for

**L. LONGIFLORUM** and varieties, which are placed as the most unreliable of all, they are certainly cheap enough to experiment with. For the open garden, and in the naturally rich and prepared soil of garden beds, I believe *L. longiflorum* generally is foredoomed to failure. To obtain any sort of success we must find the right spot for them. They should be planted within the sheltering influence of a house or wall, and preferably on a north or western aspect. Spring frosts and the sudden spring sunshine will not harm them there. Plant quite close to the wall, as you would the *Belladonna* Lilies, and, having a good trench of light loam with peat screenings for the staple, plant 6 inches deep, imbedding the bulbs in pure sand. As a protection against severe frost for the above-ground shoots light litter, or Laurel boughs stuck into the soil and leaning to the wall, could be used. In this way there is hope of success. My advice is, grow those kinds that experience has shown to be a success and specialise in them. For the rest, if we must have the rarer ones in our gardens the only way is to experiment.

Hampton Hill.

E. H. JENKINS.

## ANEMONE APENNINA IN GRASS.

THE beauty of *Anemone apennina* when naturalised in grass is shown in the accompanying illustration. When the sun opens the flowers fully they make a lovely carpet of blue, and even from a distance attract

attention. The illustration shows them growing beneath a large tree on the mound at Kew.

## DAFFODIL NOTES.

**M**R. PETER BARR sends us from Scotland a most interesting series of Daffodil flowers, with instructive notes. They are as follows: *Queen Anne's Double Daffodil* planted round and under a Hawthorn. The flower is quite true to character, but much smaller than we should see under different conditions.

*Narcissus Pseudo-Narcissus* in grass round and under a Mountain Ash. This is smaller than we have lately seen in Buckinghamshire meadows, but it is very interesting. Then we have the pretty little

*N. Macleayi*, the bulbs of which have been planted close to a dipping barrel, which for months is in wet ground, and the soil is, of course, quite moist. Mr. Barr also sends

*N. moschatius*, which have also been grown under a Mountain Ash tree. We welcome the beautiful flowers of

*N. pallidus praecox*, which are stronger in colour than in our own garden. The flowers of

*N. variformis* are very beautiful indeed. The delicacy of colour in the trumpet and in the perianth makes this quite one of the most acceptable flowers of early spring. It is a great pleasure to receive some flowers of the

*N. minimus*, from bulbs planted in grass. We also planted a lot of this exquisite little Daffodil last autumn—a little colony on the margin of a lawn—and thought it one of the sweetest heralds of the spring. We welcome the

*Tenby Daffodil*, which, in Scotland, seems to be even more robust than it is in the south. Mr. Barr very kindly sends flowers of

*N. cyclamineus*. In one case they were picked from bulbs planted round and under a Mountain Ash, and in another on a margin of a British



THE APENNINE ANEMONE IN GRASS.

Primula bed. This, of course, to a Daffodil grower is most interesting. The difference in the flowers is extraordinary. Those picked from bulbs planted by the side of the Primula bed are quite double the size, if not more, than those grown near and under the tree. Our experience of this beautiful little Daffodil is that it likes moisture, and a little shade, and this appears to be Mr. Barr's experience in Scotland. As all Daffodil growers know, it is through the efforts of Mr. Barr that this beautiful little Daffodil has become one of the most welcome of early flowers in the English garden.

These instructive notes about the beautiful flowers that Mr. Barr sends will be read with feel sure by the many lovers of the Daffodil family. We hope very shortly to publish a series of articles from Mr. Barr setting forth his early experience of the flower which he has practically brought into English gardens. The letter is as follows:

"Beginning with those naturalised in grass, *N. pallidus præcox* and *N. variiformis*, I suggest they are most likely the ancient parents of the white Daffodils known to the Daffodil students of the first quarter of the nineteenth century. I now add *N. moschatas*, being the whitest of the three wild species, cultivated in John Parkinson's time, and growing on the Pyrenees. The lowest in altitude are the large-flowered *N. pallidus præcox*, next in elevation *N. variiformis*, the highest being *N. moschatas*. In a wild state these are too far removed from each other for pollen to reach them, so no variations of the three so far have been found on the Pyrenees. No hybrid or variety has yet been found of *N. moschatas*, but flowers larger and smaller may be observed among collected bulbs. *N. variiformis* and *N. poeticus* grow near each other, and there is found *N. Bernardi*; and I think from the same cross Parkinson got *N. montanus*, hence the name. The man who came from France to sell Daffodils in 1629, and who, no doubt, collected the bulbs on the Pyrenees, when collecting *N. variiformis* would be sure to collect also the hybrids, and what is more natural than for Parkinson to class them among *N. incomparabilis*? I refer your readers to 'The Garden of Pleasant Flowers,' page 71, woodcuts 6 and 7, 7 being the most likely, and 6 perhaps incomparabilis. Should I remember later on, I will carefully examine what flowers I can secure of *N. Bernardi*, and compare them with the woodcuts. I am glad to see Mr. Barrell of Claremont coming out of his shell. Why did he not do this long ago? Regarding *N. cyclamineus*, I sent many lots of my collected bulbs to sundry persons to report upon, and not one of them did so. Having some correspondence with the Messrs. Walpole of Mount Usher, Ireland, I discovered that the late Mr. F. W. Barbridge sent some of the bulbs I gave to him to Mount Usher, and there ever since in moist ground they have flowered annually. They kindly sent to me flowers of the Spanish form of *N. pallidus præcox* and *N. cyclamineus*. Of *N. cyclamineus* I never saw finer flowers. *N. pallidus præcox* varies in size in Spain, whether owing to the wetness or dryness of the soil, I did not make special observation. The largest I saw were above the river Bidasoa, on the side of the high ground, and were kept wet by the stream passing under the road, out out of the face of the hill, on the Spanish side of the river, and not very far from Fontarabia. I have *N. cyclamineus* in grass surrounding a Mountain Ash, and as dry as it could well be, the roots of the Mountain Ash taking up all the moisture. Some were planted in the autumn of 1905 on the edge of one of my beds of 'British Primulas.' The flowers are larger than those in the dry situation. Moral: plant *N. cyclamineus* anywhere and it will grow; avoid manure. *N. pseudo-Narcissus* double in grass, now in flower; *N. Queen Anne's* double Daffodil in grass round a Hawthorn, now in flower; *N. nanus* and *N. minor* and *N. Yellow Hoop Petticoat* have been in flower for some weeks, planted close to the

wall of a greenhouse, facing south, and very dry; *N. Macleani* in the same position, but close to a dipping barrel sunk in the ground, and generally in rainy weather overflows here in this situation, so grows as a semi-aquatic; *N. Golden Spur* bulbs left in the ground (1905) by accident in full flower; *N. minor* planted in November in full flower. I naturalised in 1904 some double and single sweet-scented Jonquils, round a Mountain Ash, they flowered well in 1905. Up till now they have not yet put in an appearance — perhaps they are dead! *N. minimus*, planted in the grass in November 1905, is very beautiful. I shave the grass where I have Daffodils planted very close and very late, and thus the smallest and lowest growers are seen to advantage. In planting Daffodils in grass my custom is to peel the turf off as thin as I can with a spade, and for sorts like *N. minimus* remove as much soil as possible from the under side

of the turf. This done, and the bulbs planted, spread over thinly any of the soil left, relay the turf neatly, and with the back of the spade beat it well down into form, and leave Nature to do the rest. If I want to naturalise Daffodils on ground that has been cultivated I select ground which has been much trodden in collecting the crop. Prick over the surface enough to get the bulb to rest on its base erect. I then dig the soil out of the trench and drop it on the bulbs. This done, sow dwarf-growing grasses on the top and beat the same down or run a heavy garden roller over the bed, beds, or quarter, and if in a place likely to be walked over no notice may be taken till the young growth takes place, then use twisted galvanised lawn protectors. Outside each of my beds and along a border under an Ivy-covered wall, where I have Daffodils in the grass, I use these protectors, and the result is that when the plants are in bloom the oval bed and the two half-moon beds look like vases."

## THE FLOWER GARDEN.

### THE WOOD ANEMONE.

OF all our native plants there are few more beautiful than the common Wood Anemone. In woods under the shade of trees, and among short grass on hedge banks, it is frequently met with in many parts of this country. Towards the end of March it may be seen opening its snow-white flowers in bright sunny weather, while it may be



THE LARGE-FLOWERED FORM OF THE WOOD ANEMONE (ANEMONE NEMOROSA GRANDIFLORA).

considered at its best during the first weeks of April. A most easy plant to please, it will thrive well in somewhat light soils, and large groups may be formed quickly, as when established it increases freely by means of its spreading underground roots. In transplanting, these roots should not be kept out of the ground long enough to get dry, as such a check is liable to prevent their flowering in the following spring. They should be planted about 3 inches below the surface in rich loamy soil and well-decayed vegetable mould, where it is never likely to become dry.

The variety shown in the illustration is a selected form with larger flowers than those of the wild plant. This group has been growing undisturbed for many years, never failing to produce its sheet of white flowers annually, although the only attention it receives is a slight top-dressing in the winter. Besides this form there are other varieties of *A. nemorosa* in cultivation, of which the lovely *A. robinsoniana* is one of the most charming. With its large turquoise blue flowers it is a most elegant plant worthy of more extended use, and no pains should be spared to select a suitable position for it. It does not grow so freely as the type in all gardens, but seems to require a more shady and damper situation in which to develop its full beauty. *A. n. var. rubra* is another pretty form, with the petals tinged or suffused with ruby red on the outside. Like the yellow *A. ranunculoides*, all the varieties of *A. nemorosa* are liable to the attacks of a fungus, which appears above the ground in the form of little cups. Once started the fungus spreads rapidly, the mycelium attacking the roots and causing large colonies of



the Anemone to disappear in a season. A near ally of this species is the Japanese *A. flaccida*, which has now been in cultivation some three or four years. Its leaves are less deeply divided, while the pure white flowers are somewhat smaller. It thrives in similar positions, and is a welcome addition to a popular family of garden plants.

W. IRVING.

## THE GREENHOUSE.

### HIPPEASTRUM MARJORY.

THIS was one of several beautiful hybrid Hippeastrums (*Amaryllis*) raised and exhib-

THE GARDEN respecting my remarks on the above when writing on the Chinese Primrose in a previous issue. I was only expressing my own opinion as to the merits or demerits of the stellata section when cultivated under bad conditions—oftentimes not the fault of the cultivator, but the circumstances with which he has to contend.

Frequently such cases come under my notice in small gardens, where everything has to be accommodated in one or two houses; and when so treated, the Star or stellata type often present a most miserable and weedy appearance, taking me back to my childhood days, when I can well remember a large percentage of the sinensis type much resembling the "Stars" of to-day. I am not



THE NEW HIPPEASTRUM MARJORY.

(Reduced.)

Raised and exhibited by Major Holford, C.I.E. (gardener, Mr. Chapman), before the Royal Horticultural Society recently.

bited by Mr. Chapman, gardener to Major Holford, C.I.E., C.V.O., Westonbirt, Tetbury, before the Royal Horticultural Society recently. No less than five received the award of merit. Marjory is a handsome crimson flower with white midrib and veins, and margined with a narrow border of white. The Hippeastrums are now in full beauty, and give great richness of colour to the plant house during late spring days.

### THE STAR PRIMULA.

I SHOULD like to make myself quite clear to your correspondent "A. O." and to other readers of

slow to recognise the fact that the stellata type, when presented at its best, is of value, such as "A. O." mentioned was seen last year at the Horticultural Hall; but what may be said also of the magnificent collections of sinensis exhibited by Messrs. Cannell of Swanley, who have done as much as anyone to improve this type, in spite of their perseverance in respect to stellata, as noticed by "A. O."? Every flower to me is beautiful, especially when produced at its best; but for amateurs and small gardens, in my opinion, a good strain of *Primula sinensis* gives more satisfaction than the stellata type. I am perfectly well aware that many differ from me in this respect; nevertheless, my conviction at present remains unchanged.

E BECKETT.

## THE WAX FLOWER.

(HOYA CARNOSA.)

THE association of this, at the beginning of the article on page 119, with the *Lapagerias* is, to my mind, not a happy one, and this opinion is substantiated by a further perusal of the note in question, as it is pointed out that the best temperature for the Hoya is that of a warm greenhouse, while during summer fire-heat is only needed at night and in the early morning. This is as might be expected from a native of the tropics; but the *Lapagerias*, which hail from the more elevated regions of Chili, where they are often enveloped in mists, resent (as do most subjects from that region) more fire-heat than is absolutely necessary; in fact, they are almost hardy or quite so in the very favoured parts of these isles. The plants referred to are certainly among the most beautiful of greenhouse climbers, but whereas a light buoyant atmosphere is most favourable to the Hoya, the amount of atmospheric moisture that Ferns as a rule delight in is more suitable to the *Lapageria*. In a dry atmosphere the leaves become thin and are very liable to be attacked by thrips, which soon do considerable damage, and as the foliage of a *Lapageria* is of a very permanent character, this damage is of far greater importance than in the case of plants that develop new leaves quickly.

T.

## COLOURED PLATE.

PLATE 1297.

### LILIUM BROWNII AND ITS VARIETIES.

THE typical *Lilium Brownii*, that is to say, the form whose name first occurred in the catalogue of Mr. F. E. Brown, nurseryman of Windsor, about the year 1838, has since that time been cultivated by the Dutch. While different works of reference give *Lilium Brownii* as a native of China, the fact remains that, much as that country has been explored of late, it has not to my knowledge been found there. Various allied forms have been imported, but not the Dutchman's *Lilium Brownii*. This last is a very beautiful Lily that flowers as a rule in June. In the first place the bulbs are very distinct, having a narrow base, from which they gradually widen upwards to an almost flat top. They are usually more or less tinged with reddish brown. The lower part of the stem, which is of a purplish hue, is leafless for some little distance, the leaves which clothe the upper portion being long, narrow, sharp-pointed, of a deep green tint, and recurring in a graceful manner. The large trumpet-shaped flowers are of an unusually thick, wax-like texture; inside they are ivory white, but heavily suffused with chocolate on the outside of the three outer segments, so that the unopened buds are entirely of a reddish brown hue, that is when they have been grown in a spot fully exposed to the sun. The dark brown anthers are very conspicuous against the white interior of the flower, which in showery weather is quickly discoloured thereby. Among the importations from China are some varieties of this, chief among them being

*L. Brownii leucanthum*.—This, the subject of the coloured plate, was first sent to Kew by Dr. Henry at the same time as the species bearing his name, which has now become so popular. This was in the year 1889, and for some years after *leucanthum* remained quite a rare plant, but of late it has been imported in larger quantities. The bulbs are large,

See bound to THE GARDEN, April 25th, 1900.



LILY BROWN AND LILY WHITE





dark coloured, and solid, while the stout stems reach a height of 4 feet to 5 feet. They are thickly clothed with rather long leaves, while the long-tubed, funnel-shaped flowers, which are partially drooping when expanded, are creamy white in colour, with a ruddy tinge outside and a yellow throat. There are bulbils in the axils of the leaves of the upper part of the stem, and altogether it has many points in common with *L. sulphureum* (*wallichianum superbum*); indeed, I fail to see why they should be regarded as specifically distinct. *L. Brownii leucanthum* was given a first-class certificate by the Royal Horticultural Society on August 29 last.

*L. Brownii Chloraster*.—From the same importation as the preceding, which in stature and general appearance it somewhat resembles, but is readily distinguished from it by its brown-tinted stem, narrower leaves, and less nodding flowers.

Apart from its own intrinsic beauty, this last-named variety is very interesting; it is a parent of *Lilium Kewense*, one of the most remarkable hybrid Lilies raised within recent years. It was obtained by fertilising the flowers of *L. Brownii Chloraster* with the pollen of *L. Henryi*, and the union of two such distinct species resulted in the production of a flower very much like a small bloom of *Lilium auratum*, in colour creamy buff, becoming almost white with age. The foliage was about intermediate between its parents. In speaking of it in the past tense, I do so because I am afraid that this interesting Lily is now lost to cultivation. The cross was made at Kew in 1897, and the first flower was borne three years later.

No mention of *Lilium Brownii* and its varieties would be complete without attention being directed to a Lily which botanists will persist in regarding as a variety of *L. japonicum* (*Krameri* of gardens). The Lily in question is that which used to be known as *Lilium odorum*, now called *L. japonicum Colchesteri*. It has nothing whatever to do with *L. japonicum*, if that be really the *L. Krameri* of gardens, but on this point opinions are by no means unanimous. Under whatever name it may be known, this Lily is undoubtedly a form of *Lilium Brownii*, from the typical kind of which it differs in its much looser and yellow-tinted bulb, its green stems, and pale-tinted leaves, which are shorter, broader, and thinner in texture than those of *L. Brownii*. The flowers, too, are shorter and much less suffused with chocolate on the outside. H. P.

## NEW AND RARE PLANTS.

### LISSOCHILUS HORSFALLII.

THIS is a handsome Orchid, growing about 3 feet high, with large Phaius-like leaves, and bearing erect racemes some 4 feet or more high. Towards the top of the raceme the flowers are produced; the sepals are small, oblong, purplish green, and upright; the petals are broad, bluish coloured, and arranged horizontally; the lip, which hangs down, is dark purple with pale yellow crest, the throat being striped with green and dark purple. It was shown by the Hon. Walter Rothschild, Tring (gardener, Mr. A. Dye), before the Royal Horticultural Society in March last, and was awarded a first-class certificate and silver-gilt Flora medal by the Orchid committee.



SINGLE FLOWER.

A RARE AND HANDSOME ORCHID. (Exhibited by the Hon. Walter Rothschild. Reduced.)



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

## HINTS ON GROWING FIG TREES.

If grown against a wall, a position facing south or south-west should be given. Ample drainage must be provided for the border, which should not be more than 2½ feet deep, and which at first when the tree is planted should be of limited extent. The soil in which it is planted should not be very rich. It is a wise precaution to build a temporary wall (say 4 feet from the wall against which the tree is planted) as high as the border, so as to confine the roots of the tree into this limited space for a few years in order to check luxuriance of growth and to promote early fruitfulness. At the time of planting the border should be made firm, and in the course of four or five years' time this temporary wall may be removed, and the roots given greater space. If the ordinary soil of the garden is good all the work necessary for extending the

(u) previous summer's (two-year-old) continuation of branch bearing first crop of Figs; (v) side shoots, which may either be pinched to form spurs or allowed to extend where space permits for furnishing the tree with bearing wood, and on which the first and only crop of Figs outdoors is produced the following season; (w) extension of branch growth, which may be trained in full length, if space allows, or be pinched where space is limited, or when desirable, as commonly is the case, to ensure a fruitful habit and assure the swelling of the first crop.

*Thinning Grapes.*—The first thinning should be commenced when the berries are about the size of Peas. First remove all the small seedless berries, then those near the stalk which would be useless, and then thin them out where they are crowded, bearing in mind all the time to aim at producing a symmetrical bunch. The

to water the moisture will remain with them. All late Peas should have a couple of inches of manure for at least a foot on each side of the rows as a mulch.

*Transplanting Hollies.*—This month is the best time to move Hollies, though experienced planters who are engaged in making new gardens will move Hollies any time. I have known them to be moved successfully in July during a very hot summer, and not a plant failed. Great care was taken in the moving, and daily sprinkling over the foliage had much to do with the success. Still, this experience does not clash with the statement that the last half of April is the best time to move them.—H.

*The Forsythias.*—These beautiful free-growing, early-flowering shrubs are masses of gold now in gardens. *F. suspensa* is the most graceful, as the habit of *F. viridissima* is stiffer, and for this reason, with a little pruning, it forms a good shrub without any support. *F. suspensa* is charming on a wall somewhat loosely trained, or it may be used to cover an arch, which it will do in two or three seasons. A group in the shrubbery, trained for a time to tall, stout stakes, and then permitted to grow out, will attract much attention when in flower. Any pruning required should be done when the flowers fall. Cuttings root freely if taken off in autumn and planted firmly on a shady border. It flowers immediately after the winter-flowering Jasmine, which it somewhat resembles in growth.

*Aster sinensis or Single Comet.*—These single-flowered Asters are becoming popular chiefly on account of their value as cut flowers. They may be had now in several colours, and seeds sown now in gentle heat will soon germinate. The plants will be ready for planting out at the end of May. If sown outside they will flower later. They make very effective beds and are lasting.

*Planting Gladioli.*—Where a succession is wanted, planting begins about the middle and end of April. Of course, a few days either way will not make much difference. The soil should be of good quality and in a suitable condition. Cover from 2 inches to 3 inches, according to the texture of the soil. On heavy land place a little sharp sand round each corm. There are many ways of arranging them; they look well in groups in hardy plant beds and borders, three, five, or more in a group from 9 inches to 12 inches apart, according to the object in view. I have used Gladioli largely in mixed bedding, dotting the corms about the beds in April where Geraniums, Verbenas, &c., will be planted. They look well in large beds, but are not so well suited for smaller ones. A very effective arrangement consisted of *Gladiolus Childei* planted 3 feet apart, and the groundwork *Heliotrope Miss Nightingale*. At intervals between the Gladioli *Hyacinthus candicans* was planted. The Gladioli and *Hyacinthus* were planted early in April, each being marked with a small stick, and the *Heliotrope* put out at the end of May. The latter were pegged down close. I may say the bed was a very large one. The same idea could be worked out with other things when one is tired of the flat arrangement of bright colours.—H.

*Ornamental Grasses.*—These are generally appreciated by the table decorator, as a spike or two of Grass comes in so useful when giving what may be termed the "finishing touch." If seeds of the following, or some of them, are sown now outside they will soon germinate, and may then



PORTION OF BRANCH OF FIG TREE, SHOWING CHARACTERISTIC GROWTHS AND MODE OF BEARING.

border will be to trench the new part, adding at the same time a liberal sprinkling of quarter-inch bones. The object of the cultivator should be to secure short-jointed, well-ripened growth during the summer, as on the success or failure in accomplishing this depends success or failure as regards securing a good crop the ensuing season. It is these shoots which produce the fruit. The current year's growth will also produce fruit, but too late to ripen out of doors in our climate. Although rich soil is not recommended for the growth of the Fig, when a good crop is secured a mulching of rich short manure should be placed over the roots, and in hot weather, while the fruit is swelling, liberal waterings of diluted manure water from the farmyard should be given every ten days or a fortnight until the fruit approaches maturity. The following references to the illustration will explain the method of treating the shoots during the summer months: (r) Three-year-old wood; (s) pinched side shoots of previous summer (each shoot was then stopped at the fifth leaf), on these the first crop (and only one outdoors) of Figs is produced, ripening outdoors in August or September; (t) current year's shoots, which may be pinched and retained for another year (if under glass, and forced from February or earlier, will produce a second crop);

worker should have a good idea of the size to which the berries will eventually attain, and so regulate the thinning accordingly. Some varieties produce larger berries than others; naturally the latter must be left wider apart. Use a thin forked stick in the left hand for holding the bunch by the stalk; then it can be kept steady, and, to a certain extent, moved about as desired. In a few weeks' time one should again look over the bunches, for there will certainly be a few more berries to remove.

*Peas for August.*—Sow every fortnight from this time onwards to the middle of June such Marrow Peas as Autocrat, Duke of Albany, Sharpe's Queen, and Duke of York, or, if older but still reliable kinds are appreciated, plant *Ne Plus Ultra*, *Veitch's Perfection*, *Walker's Perpetual*, and *British Queen*. The last named was a standard variety fifty years ago, and for gathering in September or later it would beat a good many of the newer sorts. Isolate the rows and plant in trenches, the individual Peas being placed 3 inches apart. If manure of any kind is placed in the trenches, bury it deep enough to prevent contact with the roots till it has become mellow and blended with the soil. Plant the Peas in a slight hollow, so that if it is necessary

be transplanted if required: *Agrostis nebulosa*, *Briza maxima*, *Eragrostis elegans*, *Hordeum jubatum*, *Panicum plicatum*, *Agrostis pulchella*, and *Panicum virgatum*.

**The Bamboo.**—This hardy evergreen forms a welcome addition to the collection of ornamental shrubs. Bamboos do not need a great depth of soil like so many of our favourite trees and shrubs, and they flourish in most garden soils which have been made rich by manuring. The proper time of year to replant or divide the Bamboo is during May, and care should be taken to plant them in a situation protected from the cold winds, as they suffer more from the latter than from severe frost. An annual top-dressing of decayed manure will be found to largely benefit these plants.—J. G.

**Cannas for Bedding.**—These handsome plants are well adapted for sub-tropical bedding, as well as for pot culture under glass. They should now be removed from their winter quarters, boxed or potted up, and placed in a gentle heat to induce them to break into growth, when they may be removed to a cold frame and hardened off for bedding out in June. There are now many good varieties, so it is useless for me to recommend any special ones. They prefer a rich, well-cultivated soil, in which they will flourish and prove very ornamental in the sub-tropical garden. When they become damaged by the frost, they should be removed and placed in a dry cellar or other similar place until the following spring, or they may be dug up before the frost affects them and potted to flower in the greenhouse.—J. G.

### TOWN GARDENING.

**Slugs and Tender Growths.**—The slugs will soon be doing damage in the border unless a look-out is kept for them and measures taken to stop their depredations. They are fond of the succulent growths of *Liliums* just as they appear above ground. An excellent method of protecting the young growths of this and other plants from slugs is to have a zinc ring some 2 inches in depth. If this is pressed in the soil about 1 inch deep around the growths it keeps the slugs away effectually. Salt is useful, the slugs may be killed if they are sprinkled with salt. They should be watched for in the evening. There are one or two patent preparations said to be destructive to slugs and other pests while doing good to the soil.

**Carnations after Planting.**—Carnations which are newly planted need very careful watering, in fact, for several weeks immediately afterwards they should not be watered at all. There is no doubt that overwatering soon after planting is responsible for a good deal of disease in the Carnations later on. When the plants have become well established and are making roots freely they take a good deal of water, but until then little or none is necessary.

**Roses and Draughts.**—Many town gardens are draughty, in fact they probably suffer more through draughts than from any other cause. It is when one attempts to grow climbing Roses or any other climbers that the bad effects of draughts are felt. Most plants are safe until they overtop the protecting fence. It is then that the cold spring wind that whistles between the houses plays havoc with any plants that are exposed to it. I have had experience of the damage that the cold winds in springtime do to climbing Roses. I have a number of these, and the young shoots, which are exceptionally forward this season, have been damaged and, in some instances, destroyed by the cold draughts. Some varieties seem more susceptible to them than others. *Souvenir de Malmaison* has suffered the worst, and *Reine Olga de Wurtemberg*, too, is badly damaged. *Crimson Rambler*, as might be expected, has not suffered much, neither has

*Dorothy Perkins*, most forward of all. If this sort of thing happens year after year it will be impossible ever to get really fine plants. Instead of training them up tall poles and making pillar Roses of them, it is a good plan to form a low rustic trellis and train them to this. Not only are the growths protected from the wind by being low down, but they will flourish all the better for being spread out so that they may receive all the sun and air possible. When the shoots are trained up the pole they often do not break into growth at the base, while those spread out against a low rustic trellis burst into growth uniformly throughout. W.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**G**ENTIANA ACAULIS, the most beautiful of all the Gentians, is easily grown, except on dry soils. It cannot be grown successfully in the mixed border, although it is sometimes used as an edging to low borders on soils specially adapted to it, but it is seen to the best advantage when planted in permanent beds. I take the plants up once in eight years, just as they finish flowering, remove the old soil to a depth of 18 inches, replacing it with fresh soil from the kitchen garden. Divide the plants, and replant them, making the soil very firm about the roots. Water freely and they become re-established in a few weeks.

**GENTIANA VERNA** is not so easily grown. I have tried it in various aspects, and have succeeded best by planting it in a narrow, moist border, at the foot of a north-west wall, in deep, sandy loam, giving abundance of water during the warm, dry months. A little broken lime rubble and beach shingle are sprinkled over the surface and tend to guard the plants and prevent evaporation.

**WALLFLOWERS.**—Now is a good time to sow seeds of this beautiful, fragrant spring flower. These are often sown too late, in June and July, but the Wallflower requires a long season to develop into a sturdy, bushy plant that will stand the winter. Sometimes they are injured by sharp frosts following much wet in winter. This is very largely the result of sowing the seeds too late. Sow the seeds thinly in drills 6 inches apart, and as soon as the plants are large enough, prick them out in an open situation in rows 1 foot apart, and 9 inches between the plants. Pinch off the tap-roots, as this induces them to form fibrous roots near the surface. If time and space can be afforded, they will well repay transplanting again early in September, as extra sturdy plants will be produced with fibrous roots that can be lifted with the soil adhering to them for bedding in November. Many shades of colour are procurable. Singles are best for bedding purposes, as they come fairly true to colour. *Phoenix*, red, flowering early, *Sutton's Blood Red*, *Vulcan*, *Cloth of Gold*, *Dwarf Bedder Yellow*, and *Dwarf Bedder Brown* I have found exceptionally good.

**LAWNS** now require constant attention. The grass grows apace when the soil is moist and the weather warm. Continue to sweep and roll, and when the grass is dry run the machine over it. Cut the edgings with the edging-iron to give a neat and tidy appearance. G. D. DAVISON.

*Westwick Gardens, Norwich.*

### ORCHIDS.

**ONCIDIUM VARIOCOSUM ROGERSII.**—The young growths are fast developing, and as soon as the new roots appear at the base of them they should be repotted or resurfaced with fresh material according to their requirements. Any plant that has been grown in the same compost for two

seasons will derive benefit from repotting. They should be turned out of the pots carefully, so that as little damage as possible is done to the roots which adhere to the side, and all the decayed compost should be removed from between the roots. Ordinary flower-pots are suitable receptacles in which to grow them, and these should be half filled with crook or chopped rhizome drainage. Pot moderately firm to within 1 inch of the rim with the following mixture: Equal parts fibrous peat and sphagnum moss with one-fifth partially decayed Oak leaf-soil. Mix the whole well together, add some coarse sand and small crocks, and surface the plants with chopped sphagnum. In potting the plant take care not to bunch the roots into the centre of the pot, but lay them out as naturally as possible and work the soil between them. Place them at the coolest end of the intermediate house and give water sparingly until the roots have permeated the new soil, but when the plants become well rooted, and the young growths are developing their pseudo-bulbs, a copious supply should be given whenever the plants are approaching dryness.

**ONCIDIUM TIGRINUM.**—This should also receive attention. It does well under the same conditions as above. The plant should be shaded from strong sunshine and occasionally sprayed overhead on bright days. *O. concolor*, *O. Forbesii*, *O. marshallianum*, *O. gardnerianum*, and *O. Inseayii* all do well under such treatment. The proper time to repot them is when new roots appear at the base of the young growths. *O. macranthum* and *O. serratum* do not require so much heat; the temperature and conditions of the cool house suit them well. They should now be producing their flowers, and care should be taken not to allow the pseudo-bulbs to shrivel too much. When the spikes are removed the plants should be given a slight rest until the new growths appear. The compost should be more lumpy for these larger-growing species, and when they are repotted a few large crocks placed vertically in the compost will keep it in good condition for a longer period. W. H. PAGE.

*Chardbear, Bourton-on-the-Water, Gloucester.*

### FRUIT GARDEN.

**DISBUDDING PEACHES AND NECTARINES.**—This should be carried out so that no perceptible check is given, and should be spread over a period of three or four weeks. First remove the buds at the back and those growing towards the wall and pointing outwards, as well as the majority that appear on the lower side of the shoots, following up with a general thinning of the remainder. In the case of old-established trees, when the final disbudding takes place leave a young growth at the base of the shoot and another at the tip. The latter may be stopped at a convenient distance if it is found there is not sufficient room to lay it in at full length. No more shoots should be allowed to remain than can be nailed in without their foliage being covered by existing shoots. Young trees need not be so severely thinned. Any shoots that show great vigour must be stopped, in order to equalise the flow of sap. In disbudding a young tree the aim should be to secure a framework of well-placed branches, with sufficient minor growths to fill in between these. Tobacco powder should be applied to the tips of the shoots attacked by aphid, and syringe with liquid insecticide as soon as the fruits are well set and the young growths have made some progress.

**STRAWBERRIES.**—Plantations may now be made from pots that have been forced and properly hardened off. Previous to planting ascertain that the balls are thoroughly saturated with water and the ground properly prepared for their reception. After planting, no further attention will be necessary except to pick off the flower-trusses and runners as they appear, unless the latter are required for increase of stock. On very light and sandy soils, and during a dry summer, the plants should be mulched with decayed manure

or short grass from the lawns. Established beds should be hoed and cleared of all weeds previous to placing on a mulching of litter or straw. Suitable material for this purpose is long stable litter free from all the finer and shorter portions, and used just as it comes fresh from the stables. It may be also of advantage to give a good soaking of liquid manure where the soil is poor, previous to applying the mulch.

**GRAFTED TREES.**—Where clay has been used for covering the grafts it should be examined frequently during dry weather, and if any cracks appear the whole mass should be well damped and some soft clay rubbed into the cracks. A covering of damp moss tied on the top of the clay will in a great measure prevent cracking. Any growths that appear on the stock should be at once removed.

**FRUIT ROOM.**—Most fruit rooms are empty at this date, so that an opportunity is afforded to thoroughly clean and air them. If the wall and ceilings are of plaster they should be white-washed, using hot lime for the purpose. All shelves and woodwork should have a thorough washing with hot water, soap, and soda, and the structure continuously well ventilated during the summer months.

**QUEEN WASPS.**—A sharp look-out should be kept for queen wasps during this month, bearing in mind that each queen caught would have formed a colony. A few wide-necked bottles half filled with a mixture of sugar and beer, and hung among the fruit trees when in blossom, will snare many wasps. In some places a small premium is offered during a few weeks of each season for the collection of queen wasps. This is a practice which might well be considerably extended.

THOMAS WILSON.

*Glamis Castle Gardens, Glamis, N.B.*

## KITCHEN GARDEN.

**CELERY TRENCHES.**—Before beginning to make these one must decide as to whether the trench is for a single or a double row of plants. I much prefer the latter. If for a double row mark off the ground into spaces of 2 feet for the trenches, with an intervening space of 3 feet between them. For a single row less space will be necessary. When cutting the sides of the trenches, run the line down each side, and thrust the spade in to make an even slanting side, so that when finished the trench is 2 feet wide at the top and about 16 inches wide at the bottom. Take out the soil for about 2 yards to a depth of two spits, placing the soil on the spaces between the trenches, then give a good layer of thoroughly well-decayed manure in the bottom, covering the manure to a depth of 3 inches with the top spit of the next 2 yards, and so on. The soil that is removed must be placed carefully on the 3 feet spaces and squared up, firming it with the back of the spade to make it neat and tidy. Where Celery trenches are made early the spaces can be used for a quick-growing crop, and also where the kitchen garden is conveniently situated the trenches are good places for hardening off bedding Geraniums, &c., being very easily covered at night by stout strips of wood laid across with mats thrown on top, the plants being also protected in a great measure from cold winds.

**MUSHROOMS.**—Continue to prepare material for Mushroom-beds. With the coming warmer weather Mushrooms do better if the beds can be made in an unheated cellar. The Mushroom house and beds will require more damping now than previously. To beds that are becoming exhausted give a good watering with salt and water; a handful of salt to two gallons of water is a good stimulant, and helps to prolong the bearing.

**BROCCOLI.**—A sowing of some of the earlier varieties of Winter Broccoli, such as Osborn's and Snow's Winter White, should soon be made; sow also late Brussels Sprouts, Self-Protecting Broccoli, more Walcheren and Autumn Giant Cauliflowers, and Cabbages. I grow Veitch's

Earliest of All, and Enfield Market throughout the summer. Make frequent sowings of Lettuces, for in some seasons Lettuces run to seed very quickly.

**VEGETABLE MARROWS AND TOMATOES** in small pots must not be allowed to get root-bound before shifting into a 5-inch or 6-inch pot. Use good rough loam, lime rubble, and old Mushroom-bed material for potting. Make the soil fairly firm and return the plants to a warm place for another week or two before preparing for planting out.

**SEEDLINGS.**—Young plants in seed beds must not be allowed to get drawn before being pricked out. I strongly advise pricking out, as the plants have then a chance to get strong and sturdy before going into their permanent quarters, whereas if left in the seed-drill till the time of planting—even though they may be sown thinly—the plants are bound to suffer and get drawn. A sunny position should be chosen for pricking out, but the ground should not be rich. Endeavour to have a good supply of labels to hand and label everything as it is sown or planted, marking the date of each operation on the label.

**PEAS.**—Make successional sowings of Main Crop varieties of Peas and Spinach as recommended in a previous calendar. A constant supply can be generally assured by sowing again as soon as the Peas of the previous sowing are about 2 inches high. Draw soil up to young Peas as they come through the ground.

**GENERAL REMARKS.**—The continued fine weather affords a splendid opportunity for hoeing and keeping down the weeds. As soon as root crops are showing well through the ground give the bed a good hoeing with a Dutch hoe. If Leeks are found to have germinated badly sow again at once. Keep a sharp look-out at all times for slugs, especially early in the morning. Very many of these pests may be discovered and destroyed first thing in the morning by looking round the walks that are moist from showers or heavy dews.

JOHN JAGUES.

*Bryanston Gardens, Blandford.*

## BOOKS.

**Sander's List of Orchid Hybrids.** This book, which is compiled and published by Messrs. Sander and Sons, St. Albans, is a most useful publication. It contains a complete list of the names and parentages of all the known hybrid Orchids, whether natural hybrids introduced or those raised at home. The arrangement is tabular and alphabetical, so that reference to any particular hybrid is easy. The pollen parent and seed parent of each are given, as far as is possible. Care has been taken to render the lists correct, but the authors say that, unfortunately, many of the records are confusing. Three distinct tables are given; in the first the names of the hybrids in alphabetical order, with the seed and pollen parents enumerated. The second table records in the first column the seed parents, while the first column of the third table gives the name of the pollen parents. This list is indispensable to the expert, the amateur, and all who wish to learn all about hybrid Orchids. The price is 7s. 6d.

**The Culture of Vegetables and Flowers from Seeds and Roots.**—This, which is one of the most useful and practical gardening books we know, has reached a twelfth edition. It is written by Messrs. Sutton and Sons, Reading, and published by Simpkin, Hamilton, Kent, and Co. Full, concise, and practical information is given upon the culture of vegetables and flowers, whether raised from seeds or roots, and the beginner in gardening could hardly fail if he read this book carefully and practised what he read. In addition, there is a gardening calendar for the year, detailing the work to be done in the flower and kitchen gardens in each month. There are chapters on "Lawns and Tennis Grounds from Seed," "The Pests of Garden Plants," and "Fungus Pests."

It is a book that should be in every garden library. Price 5s. nett.

**The Book of the Winter Garden.** This book was written to call attention to the principal winter-flowering plants, and those valuable in winter on account of their fruit, foliage, or stem colouring. Attention is directed to shrubs, which, either from some beauty in stem or leaf, or from their flowering during winter are of value. Winter-flowering bulbs and perennials, plants for the alpine house, and plants under glass are all referred to. Anyone wishing to make the most of the garden in winter-time would gain much useful information from a perusal of this work, which is by Mr. D. S. Fish. It is published by John Lane, Vigo Street, W. Price 2s. 6d.

**Pictorial Practical Carnation Growing.**—In this publication Mr. W. Wright relies largely upon sketches, as the title suggests, for the purpose of teaching the reader how to grow Carnations, and they are certainly helpful. What they do not make quite clear, the accompanying text will enable one to understand. The various sections of the Carnation, as well as the Pink, are dealt with. Published by Cassell and Co. Price 1s. nett.

**GRASS.**—This is the title of a booklet published by Messrs. Carter and Co., High Holborn, that tells one all about the lawn, how to make it, and how to keep it in good condition. It is well illustrated, and is well worth reading by those about to make a lawn, or who think of renovating one that is worn out.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

### FLOWER GARDEN.

**ANEMONES DYING (Anemone).**—It is somewhat difficult to give an opinion as to why the Anemones have gone off so badly without knowing the exact conditions under which they are grown. You do not say which Anemone it is, and as there are so many species grown in gardens, it is not easy to guess. Presuming that the common Wood Anemone (*A. nemorosa*) is meant, this likes partial shade and light, rich soil. The disappearance of so many plants may be due to the attack of a fungus to which this species is peculiarly liable, and which often destroys large quantities in a short period. The fungus may be recognised by the small cup-shaped growths, which are the only portion produced above ground. The roots may have been infected with the mycelium of the fungus when planted, but it is impossible to detect it at that time, as it is contained in the tissues of the rhizomes.

**DESTROYING NETTLES (J. A. C.).**—One of the simplest ways to destroy nettles is to run a sharp hoe over the patches and cut off the young tops as fast as they appear. If that were done every week, by the end of the season the roots would become so weak as to check growth materially. No weeds, however strong the roots, can continue to live if the leaf-growth be kept out down in this way. Docks, Bindweed, Dandelions, and Thistles, all alike succumb in time. As you are troubled with but two or three patches of

nettles, each some 2 yards to 3 yards across, the hoeing, to be done once a week, would occasion about ten minutes' labour well spent. You could, after the first hoeing, apply a dressing of coarse salt if you wished, but too many such dressings would be harmful. Next spring, if the surface of the patches be forked over and some grass seed sown, possibly the nettles would give no further trouble.

**TULIPS FAILING (G. P.).**—These Tulips seem to have the foliage attacked by the Tulip mould or *Sclerotinia parasitica*, but the cause is difficult to say. From the growth of the plants we should say that the bulbs had been removed too early from their plunging bed. The foliage seems to have been drawn up at the expense of the flower.

**IRIS ANGLICA (Mrs. Dinesen).**—The plant probably meant is *I. anglica*, a synonym of *I. xiphoides*, the so-called English Iris. It is more robust than the Spanish Iris (*I. xiphium*), with broader foliage and larger flowers. It is a native of the Pyrenees, and came into the hands of the Dutch by way of England, thus obtaining its popular name. The colours of the flowers range from blue, through all shades of purple to white. It thrives best in a moist position in rather rich light soil, coming into flower some fortnight or so after the Spanish Iris.

**ARCHES FOR PLANTS (R. W. A.).**—Galvanised wire arches are cheap, but, like many other cheap things, they have their defects, the worst of which is that when clothed with foliage they are apt to be twisted out of shape during high winds. This can be remedied, however, by having an iron bar of about 1 inch diameter up each side, to which the arch can be fastened and which gives the necessary rigidity. By using some stout poles a series of rustic arches can be fashioned, which last for a good many years and look as well as anything else. The poles should be of Sweet Chestnut, Oak, Acacia, Plane, or Larch, which all last well, either in the ground or out of it.

### TREES AND SHRUBS.

**PLANTING GORSE, HEATHER, &c. (R. W. Ascroft).**—It is too late to plant Gorse, &c., this season, unless we get a showery week or two very shortly. We should advise you to cut the grass closely, and tear the ground up with a heavy harrow, so that you can sow seeds on it of Gorse, Broom, and Heather, which can be obtained very cheaply from most seedsmen. Bracken must be planted in clumps, which can be done now if you wish. If you use plants of Gorse, &c., we think you cannot do better than procure them from the nearest nursery, as they are rather difficult subjects to transplant—except Heather—and if they are obtained from a distance they are apt to suffer during transit. They are best planted in November or March. You may have a difficulty in growing Heather, but you could try a few at first.

**QUESTIONS ABOUT SHRUBS (A. C.).**—We think your idea of planting the shrubs a very good one, and do not consider that you have too many plants for the purpose. Of the larger evergreens marked X on the plan, good kinds are Laurel, Holly, Berberis Darwini (which will reach a height of 6 feet or 7 feet, and bears a great profusion of orange-coloured blossoms in May), and *Ligustrum lucidum* (handsome dark green leaves, and feathery clusters of flowers in July). Of smaller-flowering evergreens, marked O you might plant *Choisya ternata* (white flowers, May); *Olearia Haasti* (white, August); and *Viburnum Tinus* (Laurustinus; white, autumn and winter). Of deciduous flowering shrubs there is a very great choice, some of the best being *Philadelphus Lemoinei erectus* (white flowers, midsummer); *Spiraea arguta* (white, spring); *Viburnum plicatum* (Japanese Snowball Tree; white, May); and *Weigela Eva Rathke* (crimson, summer). We have selected these deciduous shrubs of a size to match the smaller evergreens. It is now too late for planting, which must be put off till October.

**WELLINGTONIA GIGANTEA (R. W. A.).**—This grows well on chalk, and if you intend to plant one we should advise you to procure a medium-sized, well-rooted plant, as it is a very difficult subject to transplant. Before planting you should dig a hole 6 feet in diameter, and at least 3 feet deep, removing some of the worst of the soil, and filling its place with some good loam and leaf-mould, but no manure, as conifers do not require it. When the tree has attained a

fair size, a good top-dressing of decayed leaves, spent hot-bed, or any fresh material will be very beneficial, and in dry weather a good soaking or two of clean water wonderfully assists their growth. For the screen you require, we can recommend the Spruce and Hemlock Fir, Austrian, Corsican, and Scotch Pines, *Cupressus lawsoniana*, *Thuja borealis*, *Thuja Lobbi*, and American *Arbor-vitæ*, all of which are evergreen, fast growing, and can be obtained fairly cheap. Of deciduous trees there are Larch, Lime, Sycamore, &c., but evergreens will suit you best, as you require a screen that will entirely shut out the buildings you do not wish to see.

### THE GREENHOUSE.

**AZALEA FLOWERS FALLING (W. D.).**—There are many different reasons that may have caused the flowers of your Azaleas and Deutzias to drop. In the first place, it was most trying to the Azaleas to be potted as late as January, as this should have been done in September, or at the latest in October. Much the same, too, applies to the Deutzias. Again, as the plants had only been just potted in January, the question arises, Under what conditions were they kept up to that time? Perhaps the roots had been allowed to get too dry; if so, the buds would experience such a check that when they attempted to develop they would turn yellow and drop. Even after potting the soil may have been allowed to get too dry; if so, it would cause the mischief. Frost, too, would make the unopened buds drop. Though it is quite impossible, as you will fully understand, for us to indicate the actual cause of the mischief, for there are so many possible reasons, we should advise you in the future to guard against such trouble by obtaining the plants earlier in the season, or, if you put it off till January, be sure and take care that they are quite established in their pots.

**RHODODENDRON CROSS (T. L.).**—The flower is of no value. It is an interesting cross, however.

**GERANIUMS DISEASED (Mrs. Wolley Dod).**—The Geranium leaves are badly attacked by one of the leaf fungi, whose ravages seem greatly on the increase. In the different cases that have of late come under our notice, we have found that plants kept in a close atmosphere are far more susceptible to this pest than those in a light, airy structure, as a free circulation of air tends to harden the tissues of the leaves, and thus renders them better able to resist the fungoid attacks. To free the plants now they are attacked we should advise spraying them with a solution of potassium sulphide. This, popularly known as liver of sulphur, may be prepared by dissolving 1oz. in a quart of hot water; then make it up to 2½ gallons with cold water. With this syringe the plants, and repeat the process in about four days, after which leave an interval of a week between the applications, which may be discontinued when the plants are free. The pots should be laid on their sides, so that the preparation does not enter the soil.

### FRUIT GARDEN.

**FIGS IN POTS—FRUIT FALLING OFF (Rowlands).** If you will out open the fallen fruit you will find that it possesses few or no seeds, fertilisation having not been effected, and without this it is impossible for growth and maturation to take place in the fruit. The chief cause of this lies, we think, in the fact of last summer's growth being more or less overcrowded, and the shoots, therefore, not sufficiently exposed to the sun, and consequently not so well ripened as they might be; or it may be that the trees are somewhat weak from successive early forcing in previous years, in which case we should let the trees come on naturally another year without any forcing at all. By thus treating them you will find they will be much strengthened and improved, and will give better crops the following years. Variety has much to do with the success of early crops of Figs. The Brown Turkey is, no doubt, still the best Fig we have for early and late summer; but for very early forcing it is much inferior to St. John's (synonym Pingo de Mel). If you must have early Figs force only this variety, and you will not be disappointed. The others you name are good for succession. If the trees are well rooted and healthy they need no shade. Introduce the others

under glass, but bring them on more slowly, and, if possible, give them more time to grow, and the results should be more satisfactory.

**SEWAGE MATTER FOR FRUIT TREES (Northerner).**—Fruit trees of any description that are making strong, vigorous wood growth do not want manuring, but rather need root-pruning, so as to restrict the action of the roots in producing wood freely. If, on the other hand, trees make only stunted or weak wood growth, or are carrying good crops of fruit, then an occasional liberal watering with weak sewage liquid helps them very much. But where liquid of this kind is used, or even only pure water, it is well to place a mulch or coat of long manure about the trees, as the water percolating through that not only washes in the manurial properties, but also prevents that oaking of the surface which commonly follows on heavy waterings of the soil in summer. If you can expose your sewage liquid in a large open tub in one corner of the garden, keeping it filled, and soaking in it a peck of good soot, it will help to make the liquid more effective for fruit trees.

### KITCHEN GARDEN.

**MAKING ASPARAGUS BED (R. W. A.).**—You must begin at once. Trench your ground 2 feet deep, breaking up the bottom soil and leaving it there. As the trenching proceeds add farmyard manure at the rate of 6 inches deep to each trench, well mixing it with the soil. For one bed you will want to trench a space 7 feet wide and as long as you want it to be. Mark out a 5-foot space in the centre of the bed, leaving a margin of a foot on either side. On the surface of this 5-foot space plant a row of Asparagus roots in the centre of it at 18 inches apart; next plant another row each side of the centre one, distance from it 18 inches, and the same distance from plant to plant in the row. Cover over the roots as soon as possible with the trenched soil which has been left over each side to the depth of 4 inches or 5 inches, pressing the soil gently to the roots as the work proceeds. Finish by raking the surface over and leaving the bed tidy. Two year old roots are the best. Keep the bed clear of weeds during the summer; give it a top-dressing next February of rotten manure about 2 inches deep. Keep the bed clean the following summer, and in the spring of 1908, if all has gone on well, you may cut the best of the grass for a month, not longer; after that you may cut in reason for a lifetime.

### MISCELLANEOUS.

**CULTURE OF CERTAIN PLANTS (E. A. H. O.).**—A brief description of the plants concerning which you enquire is herewith appended. *Persea linearis*.—A large shrub or small tree, with narrow leaves and yellow flowers. *Hakea encalyptoides*.—The correct name of this is *Hakea laurina*. It is a freely-branched shrub, clothed with pointed, oblong-shaped leaves 4 inches to 6 inches long, while the small, curious rosy lilac-coloured flowers are borne in clusters. *Epacris obtusifolia*.—A pretty little white flowering shrub, whose blossoms are shorter than those of the garden varieties of *Epacris*. *Lophostemon australe* (*Tristania suaveolens*).—A small tree with clusters of yellowish flowers, nearly related to the Myrtle. *Actinotus Heliathli*.—Perennial, with small white flowers borne in umbels. *Correa speciosa* (Australian Fuchsia).—A shrub with drooping red flowers after the manner of a Fuchsia. *Callistemon salignus*.—Better known in this country as *Metrosideros forficata*. A charming shrub, with bottle brush-like flowers of a scarlet colour. *Humea elegans*.—A well-known biennial, with large, rough, fragrant leaves and tall, branching panicles of plum-like pink blossoms. It will reach a height of 6 feet to 8 feet, two-thirds of this being occupied by the panicle. *Bursaria spinosa* (not speciosa).—A freely-branched shrub, with pretty white flowers. *Eriostemon nerifolium*.—A dense bush, with dark green box-like leaves and white flowers. *Telopea speciosissima* (Waratah).—One of the most showy of Australian shrubs or small trees. It has ovate leaves thick in texture, and crimson flowers borne in terminal heads. *Hardenbergia*, white, and *Hardenbergia*, pink.—Greenhouse climbers, with clusters of little pea-shaped blossoms. *Templetonia retusa*.—A rather upright-growing branching shrub, with salmon red pea-shaped flowers. All of the above are greenhouse plants, and most of them will do well in a mixture of loam, peat, and sand. The *Epacris* and *Correa* need good fibrous peat and sand alone, while for the *Humea* more liberal treatment is necessary. It will thrive in loam, leaf-



mould, well-decayed cow manure, and a little sand. All of the above except the Humes need to be firmly potted, and thorough drainage combined with careful watering is very necessary.

**ARTIFICIAL MANURES (J. A. C.).**—The three samples of matter sent as fertilisers seem to be all of fine dried sewage deposit, such as Native Guano, but No. 5, judging by its colour, seems to include a portion of very finely ground basic slag. Each sample is entirely devoid of smell, and does not appear to be of a very active or effective nature. Only by chemical analysis, a costly process, could the actual fertilising properties of each be determined. Native Guano, a sewage deposit in a dry powdered condition, sold at some £3 to £4 per ton, needs to be applied to ground very liberally indeed, while a mixture of true mineral fertilisers, costing £10 to £12 per ton, gives a vastly higher proportion of fertility. If you use these materials, and it is rather late now to apply them, do so at the rate of 20 lb. per rod, and at once. Possibly dissolved at the rate of 10 lb. to twenty gallons of water in a large tub, you would find them more efficient as liquid manure.

**MARKETING AMATEUR'S GARDEN PRODUCE (Northern).** It is not practicable for one amateur gardener in any locality to create a market for his produce. Were there a number, say from six to twelve, for instance, they might arrange with some greengrocer in a near town to send round two or three times a week and collect each one's produce. In marketing it is important that the produce be good, that it be well prepared, and that it be in quantity to enable a body of customers to be supplied for some time. That is very important, and is largely the secret of success with market gardeners who are extensive growers. If, as seems probable, your position is an isolated one, could you not manage to work up a selling connexion among friends in some near town, supplying them with what you have at moderate prices? So much is doubtless contingent on facilities for conveyance. The provision of collecting agencies of garden produce will, we fear, not follow until groups of small garden holdings in localities are produced, worked on a co-operative system.

**IMPORTING FERNS (H. C. Jace).**—1. For the Filmy Ferns and Lyopods the only way to import them successfully is by means of warden cases, the plants being thoroughly established in small pots before they are packed. Of the Davallias with creeping rhizomes, a fair percentage should reach here alive if the fronds are cut off and packed in a box. They must be in a moderately dry condition when packed, and the boxes should not be too large, otherwise they may heat. A few holes may be bored in the box, and before shipping it should be plainly marked "Keep from heat of engines," otherwise the contents may all be dried up. The Tree Fern trunks may be treated in a similar way. If the Platyceriums are established in comparatively small pots, a moderate number should reach here alive. 2 and 3. These are answered above. 4. Though Crinums and Alocasias when dormant could be readily sent in boxes, there is so little demand for them in this country that you would not find them remunerative. 5. The cultivation of Eucharis amazonica is not on the increase here, and any importations of this would have to be sold so cheaply to attract purchasers that it is not likely to turn out profitable. 6. Chrysoglossum nebulosum is a purely botanical Orchid of which buyers are very few. 7. The long list of Orchids mentioned by you are not popular at the present time, therefore we do not think anyone would risk paying you the price named for just putting them on board, as the mortality among them might be great. However, your better way would be to communicate with some commercial firms who make a speciality of Orchid importation, and possibly you might do business with them.

**NAMES OF PLANTS.**—James Harris. —Cotoneaster frigidula. —E. L. B. —Rose Fortune's Yellow. —Pensacola. —Sophora tetraptera (Edwardsia). —W. Ingram. —Euscus auleatus (male form). Female form has broader cladodes. There is no distinctive name for male and female forms. —Miss M. O'B. —1. Small flower of Incomparabilis Ledall; 2. Ledall Duchess of Brabant; 3. Small flower incomparabilis Stella; 4. Princeps; 5. Some discarded variety of Barri; 6. A poor flower of Sir Watkin. —W. G. —1. Tusilago farfara; 2. Trachystemon orientale; 3. Tellima grandiflora; 4. Pachysandra procumbens; 5. Arabis procurrens. —T. P. Price. —The name of the enclosed Fuchsia is Lustre, an old but very good variety. The sprays sent were delightful, and speak highly for your skill in the cultivation of this charming plant. Fuchsias might well be used for the clothing of roofs, trellises, walls, &c., more often than they are now. —E. Plomer. —1. Cupressus lawsoniana var. aurea; 2, 3, and 4, forms of common Yew (Taxus baccata); 5. Abies Pinsapo; 6. Cedrus Libani; 7. Tsuga canadensis; 8. Abies pectinata; 9. A. nordmanniana. —A. M. S. —1. Probably malformed inflorescence of a Nerine; 2. Fuschkinia scilloides; 3. Narcissus Maccleayi.

think we may say a finer lot of the best and truest types of these flowers has never been seen at any meeting. A large number of the varieties exhibited have already received an award of merit. A striking feature of these flowers lies in the way in which the colour has been imparted, the reverse as well as the face of the petals betraying the same colour shade. Great stature, freedom of flowering, and foliage contemporary with the flowers were other notable features in these plants. Gold medal.

Messrs. E. and G. Cuthbert, Southgate, staged on the floor a group of flowering shrubs, as Azaleas, Lilacs, and similar plants. Wistarias and Weigelas as standards were good, and a pretty lot of Daphne Odoratum was noted. Silver-gilt Flora medal.

A charmingly-arranged rock garden exhibit was that from Messrs. Cuthbert and Sons, Highgate, N., extending to nearly 45 feet in length, and of some 8 feet or 9 feet in width. Taking the outline of a raised rock bank, with cool-looking recesses and depressions at each extreme point, the remainder was made up of flowering plants, rock plants, and shrubs that gave the best possible idea of a rock garden well equipped with the choicest and the best. In the upper parts and the background some fine Magnolias, &c., were seen. We make no attempt to enumerate the endless array of good plants. Gold medal.

Pelargoniums in the out state were finely shown by Messrs. Cannell, Swanley, the brilliant masses of colour making a rich display. Silver Banksian medal.

Mr. H. B. May, Edmonton, had groups of Roses, as White Pet and Mme. Lavallée, together with a fine display of Pelargoniums in pots, and a superb lot of Pansies. Silver Flora medal.

Mr. H. Lewis, The Perennial Nurseries, Bridgewater, showed a very fine lot of Anemones, chiefly of the A. coronaria forms, in great variety of colour, and displaying excellent cultivation. Silver Banksian medal.

Messrs. Gilbert and Son, Bourne, Lincolnshire, also showed Anemones with Tulips, Daffodils, and a few Crown Imperials.

Some interesting plants came from Messrs. Paul and Son, The Old Nurseries, Chessington, and among them a fruiting specimen of the Loquat (Eriobotrya japonica).

Examples of Sutton's Carnation-Raked Clarkias came from the Hon. Justice Swinfin Esq., Waybridge (gardener, Mr. J. Lock).

The Messrs. Hopkins, Mere, Cheshire, showed a group of Auriculas, Primulas, Daisies, and other spring plants. Bronze Flora medal.

Mr. S. Mortimer, Farnham, Surrey, showed some of the American Carnations and an excellent strain of Polyanthus. Silver Flora medal.

Messrs. Hugh Low and Co. also contributed Carnations of the above type with Malmalsons and soft-wooded Heaths.

A considerable number of Camellias, cut from the open, were exhibited by Sir F. T. Barry, Bart., St. Leonard's Hill, Windsor (gardener, Mr. R. Brown). Silver Banksian medal.

Pans of alpinas, with Primroses and other early spring flowers, formed an exhibit from Messrs. J. Peed and Son, West Norwood, S.E.

Mr. L. R. Russell, Richmond, showed Clematises in excellent style, the group containing quite a representative collection of these useful plants. Silver Flora medal.

Messrs. William Bull and Son, Chelsea, had a small group of stove decorative plants.

Messrs. Veitch and Son, Chelsea, had a large group of blue Hydrangeas and Zanthoxeras sorbifolia, the latter exceedingly well flowered. Silver Banksian medal.

An exceptional feature was the group of white-flowered Hippeastrums from Mrs. W. H. Burns, North Myms Park, Hatfield. Some three dozen plants were shown, varying in degree of purity and excellence, while representing a strain of high merit. Silver-gilt Flora medal.

A very fine strain of Anemones, Pansies, and Violas came from Messrs. Dobbie and Co., Rothesay, and in each case gave evidence of a superiority that was marked, while the freshness of the latter-named groups was quite remarkable. Silver Flora medal.

Messrs. J. Cheal and Son, Crawley, exhibited alpinas in boxes in much variety. The Guildford Hardy Plant Nursery contributed some charming things in pots and pans.

Hardy spring flowers from Messrs. Wallace and Co., Colchester, were very pretty and effective, and included Dog's-tooth Violets, Tulip Greigii, Muscari conicum, Fritillarias, &c. A bold form of Crown Imperial was also shown.

An excellent exhibit of the Rambler Rose Mrs. F. W. Flight came from Messrs. Cuthbert and Sons, Highgate.

Messrs. E. Smith and Co., Worcester, contributed Magnolias, Clematises, Acers, and other interesting plants. Bronze Flora medal.

A very beautiful lot of Malmalson Carnation Princess of Wales came from Mr. Leopold de Rothschild, Leighton Buzzard (gardener, Mr. Jennings). The flowers were of great size and well coloured. Silver-gilt Banksian medal.

#### CROYDON AND DISTRICT GARDENERS' SOCIETY.

An evening with the horticultural books at the Croydon Public Libraries was one of the meetings arranged in this society's syllabus, and on the 4th inst. a very good attendance took advantage of the kindness of the libraries committee. Mr. J. Harrison Dick, of the *Journal of Horticulture*, who has on more than one occasion rendered valuable aid to this society, paid another visit, and in his recommendations of some of the works catalogued the members were able to make a better choice of these books in each section of horticulture. He also advised the closer study of these books.

Very hearty thanks were conveyed to Mr. Harrison Dick for his introductory remarks, also to the libraries com-

mittee, who had, through their chief librarian, Mr. Jast, made such an excellent display of the works.

Mr. Oxtoby staged half-a-dozen Cineraria stellata in perfect form and colour, gaining the maximum number of points.

#### PLYMOUTH DAFFODIL SHOW.

On the 10th inst. the Devon Daffodil and Spring Flower Society held their third exhibition in the Guildhall, Plymouth. The show was a success, although the unavoidable fixing of the date in Holy Week prevented clerical exhibitors from competing. The Devon classes were well filled, especially the premier one for fifteen varieties of Daffodils, which received ten entries. That the society has been successful in its endeavour to increase the culture of the Daffodil in the county is a fact to be hailed with pleasure by all flower-lovers in the south-west.

#### PRIZE LIST.

Thirty varieties of Daffodils: First, Mr. E. H. Williams, with an excellent stand; second, Mr. G. Soltan-Symons; third, Mrs. Bainbridge.

Group of Daffodil seedlings not in commerce: Silver cup, Mr. J. C. Williams, who staged a beautiful stand of unnamed seedlings, among which were remarkable flowers of the Magni-Coronati, Medio-Coronati, and Parvi-Coronati sections far in advance of varieties now in commerce. In the Parvi-Coronati the cups were very brilliant in their deep red and orange colouring, and in the Medio-Coronati and Magni-Coronati blooms of great substance and pleasing colours were shown.

Nine distinct Magni-Coronati: First, Mr. C. Matthews; second, Miss M. Williams; third, Mr. G. Soltan-Symons.

Nine distinct Medio-Coronati: First, Hon. John Boscawen; second, Mr. G. Soltan-Symons; third, Miss C. Vivian; fourth, Miss M. Williams.

Single bloom Magni-Coronati: First, Miss M. Williams. Single bloom Medio-Coronati: First, Mr. E. H. Williams. Single bloom Parvi-Coronati: First, Mrs. W. Tyacke.

Twelve hardy spring flowers: First, Mr. G. Soltan-Symons.

Best group of Rhododendron blooms: First, Mrs. Coryton; second, Mrs. J. Williams. Finest truss of Rhododendron: First, the Earl of Morley.

Twenty varieties hard-wooded flowering shrubs: First, the Earl of Mount Edgumbe, with a fine collection; second, Mrs. Coryton, with an even brighter assortment, which would have taken premier honours had not some of the sprays been over the prescribed length.

#### OPEN TO DEVON ONLY.

Fifteen varieties of Daffodils: First, Mr. G. Soltan-Symons; second, Mrs. Bainbridge; third, Miss E. Farrant.

Six distinct Magni-Coronati: First, Miss Carew; second, Miss L. Hawker; third, Mr. C. Matthews.

Six distinct Medio-Coronati: First, Mr. G. Soltan-Symons; second, Miss L. Hawker; third, Hon. Mrs. Colborne.

Six distinct Parvi-Coronati: First, Hon. Mrs. Colborne; second, Mr. G. Soltan-Symons.

Three distinct Magni-Coronati: First, Mr. E. W. Hawker; second, Mrs. E. W. Cory; third, Miss G. Hawker; fourth, the Earl of Morley.

Three distinct Medio-Coronati: First, Hon. Mrs. Colborne; second, Miss G. Hawker; third, Mr. E. W. Hawker; fourth, Mrs. W. H. Hawker.

Three distinct Parvi-Coronati: First, Mrs. W. H. Hawker; second, Mrs. R. W. Cory; third, Hon. Mrs. Colborne.

Three distinct potations: First, Mr. H. G. Hawker; second, Mr. G. Soltan-Symons; third, Miss Carew.

Single bloom Medio-Coronati: First, Miss E. Farrant, with the finest Lucifer in the show; second, Hon. Mrs. Colborne; third, the Earl of Morley.

Twelve hardy spring flowers: First, Miss Richardson; second, Mrs. Bainbridge.

Six hardy spring flowers: First, Mrs. Yonge; second, Miss E. Farrant; third, Captain Parby.

Twenty varieties hard-wooded flowering shrubs: First, Mrs. Bainbridge; second, Mr. G. Soltan-Symons.

Six pots Tulips: First, Mrs. Bainbridge; second, Miss E. Hawker; third, Mr. H. Collinsplatt.

Three pots Daffodils: First, Mr. G. Soltan-Symons; second, Mrs. Bainbridge.

Six seedling Auriculas: First, Hon. Mrs. Tremayne; second, Captain E. H. Parby; third, Miss L. Hawker.

Six flowering shrubs: First, Mrs. Bainbridge.

Mrs. W. Tyacke won the silver cup given by Messrs. Barr and Sons for the best group of Daffodils.

#### NURSEYMEN'S EXHIBITS.

These provided quite a show in themselves. Messrs. E. Veitch and Son, Exeter, staged a grand collection of plants, for which they were awarded a gold medal. The Devon Rosery, Torquay, received a silver medal for pot Roses in flower. Messrs. Dobbie and Son, Rothesay, were granted a silver medal and given an award of merit for an assortment of splendid Anemones. Messrs. Sutton and Sons, Reading, received an award of merit for excellently-grown Cinerarias, and also obtained a silver medal. Messrs. T. Chalce and Son, Plympton, were awarded a silver medal for an interesting stand of plants. Messrs. Barr and Sons, for their collection of over 150 varieties of Daffodils, received a silver medal; as did Mr. Vincent Slade, Taunton, for a very fine display of trusses of zonal Pelargoniums. The judges passed a vote of thanks to Mr. H. Grigg for a very interesting collection of flowering shrubs and spring flowers; to Colonel F. Hext for some magnificent bunches of Neapolitan Violets; and to Mr. E. Sydenham for a stand of bulbs grown in moss fibre. The judges were: For Daffodils, Miss E. Willmott and Mr. Ware; for shrubs and spring flowers, Mr. P. D. Williams; and for pot plants, Mr. T. J. R. Chalce.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY.

#### FLORAL COMMITTEE (APRIL 17).

PRESENT: Mr. W. Marshall (chairman), Messrs. C. T. Drury, J. Green, George Nicholson, T. W. Turner, C. J. Salter, J. F. McLeod, C. E. Fielder, J. Jennings, R. C. Reginald Neville, Charles Jeffries, W. Bain, Charles Dixon, Charles E. Pearson, Charles E. Shea, W. P. Thomson, E. H. Jenkins, George Paul, William Cuthbertson, Edward Mawley, H. J. Cuthbert, George Gordon, and the Rev. F. Page Roberts.

A superb lot of Hippeastrums came from Major Holford, Westonbirt, Gloucester (gardener, Mr. Chapman), and we

**WEST'S**  
Patent  
Corrugated



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than  
Raffia.

Best Tying Material, cannot cut Plants, expands with growth, imperishable wear, nice green colour, half price of Raffia, twice as strong, no waste. 1d. coil ties up 150 plants, so test it yourself and buy on its merits. Also 250 yd. Reels, complete 1/6.

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7 ... 4 by 8	...	2	10	0
21 ... 6 by 8	...	3	7	0
24 ... 6 by 12	...	3	7	0

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It absolutely **ABOLISHES** Green and Black Fly, American Blight, Caterpillars, and all kinds of **APHIS**

**TRY IT** and you will agree with other Users, who have said:

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Pint, 1/6; Quart, 2/6; Half-Gallon, 4/-; Gall., 7/6.

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Does more and better work than other syringes double the size. Try it, and you will agree.



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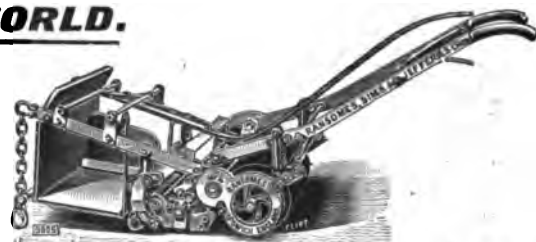
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## THE ROYAL BOTANIC SOCIETY.

THE second spring show of this society was held on the 18th inst. There was an interesting show, and in spite of the cold, dull weather there was a good attendance of visitors in the afternoon.

R. Wagg, Esq., The Islet, Maidenhead (gardener, Mr. D. Phillips), arranged a fine group of florists' Cinerarias, with a background of taller plants of the stellata type. Gold medal.

The competition for Barr and Sons' cup brought only one exhibit; this was from H. R. Darlington, Esq., Park House, Potter's Bar (gardener, Mr. W. Bignell), who staged about seventy varieties, including many of the newer sorts. The conditions are that at least three must compete, so the cup was not awarded, but the group well deserved it. Large silver medal.

Messrs. B. H. Bath, Limited, Wisbech, staged a fine collection of Daffodils in many beautiful sorts. Large silver-gilt medal.

Messrs. Barr and Sons, Covent Garden, contributed a good collection, among them being some first-rate sorts. Pearl of Kent (large white trumpet), odoratus rugulosus maximus, and Agnes Harvey (white incomparabilis) received certificates of merit. Silver-gilt medal.

Messrs. Hogg and Robertson, Dublin, exhibited a large and representative collection of the best Narcissus. Large silver medal.

Messrs. Peed and Son, West Norwood, showed Daffodils and an interesting collection of plants suitable for the rock garden. Silver medal.

Mr. S. Mortimer, Farnham, staged American Carnations and a fine strain of Polyanthus. An award of merit was given for the strain and a silver medal for the exhibit.

Messrs. Outbush and Sons, Highgate, put up a large rock garden, which was well filled with interesting plants. Hardy Orchids and a large basin of aquatics were prominent features. Gold medal.

Messrs. B. and G. Outbush, Southgate, were awarded a gold medal for a fine group of hardy flowering shrubs.

Mr. L. B. Russell, Richmond, exhibited Clematises in variety. Silver medal.

Messrs. W. Paul and Son, Waltham Cross, put up a group of finely flowered shrubs and several new Roses; Crepuscule, ambered-flowered Noisette, was awarded a certificate of merit. Silver medal.

Several interesting exhibits from the society's collections were shown.

## KENT AND SUSSEX DAFFODIL SOCIETY.

THE first exhibition of this society was held in the Great Hall, Tunbridge Wells, on the 20th inst., and proved a great success. The room was filled with the exhibits, and the blooms were, on the whole, of excellent quality. The honorary secretary, Mr. F. Herbert Chapman, is to be congratulated upon the success which attended the society's first show.

For a collection of Daffodils, not less than thirty, nor more than forty varieties, Mr. F. Herbert Chapman, Guilford Lodge, Rye, was first; second, Rev. G. P. Haydon, Westboro, Canterbury; third, Mr. W. A. Watts, Broadwells, St. Asaph.

For twelve distinct varieties of Daffodils, Mrs. R. H. Benson, Buckhurst, Withyham, was first; second, Mr. John A. Nix, Tilgate, Crawley; third, Mr. F. Barchard, Uckfield.

For twelve distinct single varieties of true trumpet Daffodils, Mrs. Benson was first; second, Mr. J. A. Nix; third, Mr. F. Barchard. Mr. Edward W. Nix, SS, Farn-dale, Tunbridge Wells, won the first prize for six distinct single varieties of trumpet Daffodils.

For twelve distinct single varieties of chalice-cupped Daffodils, Mrs. Benson was first; second, Mr. J. A. Nix; third, Mr. F. Barchard. The first prize for six distinct single varieties as in the preceding class was won by Miss E. F. Harcourt, New Lodge, Hawkhurst; second, Mr. E. W. Nix.

Mr. J. A. Nix was first for six distinct single varieties of Parvi-Coronati Daffodils. There were no entries in the class for six varieties of Polyanthus Narcissus.

For three distinct varieties of double Daffodils, Mr. W. A. Watts, St. Asaph, was first; second, Rev. G. P. Haydon.

In the class for eight distinct varieties of Narcissus, any or all sections, Mrs. Benson won first prize; second, Mr. E. W. Nix; third, Miss Harcourt.

Mr. F. H. Chapman was first for one vase of Narcissus Lutworth, Mr. E. W. Nix being second, and Mr. J. A. Nix third.

The first prize for three vases of Polyanthus Narcissus, grown in vases in moss fibre, was not awarded; Mr. F. H. Chapman won the second prize.

For three vases of any other varieties of Daffodils grown in moss fibre, Mr. F. H. Chapman was first. There were no entries for the best representative collection of Daffodil species and natural hybrids.

The finest single bloom of trumpet Daffodil was exhibited by the Rev. G. P. Haydon, who showed a new seedling self yellow, Lord Medway; second, Mr. F. H. Chapman, with King Alfred; third, Mr. W. A. Watts.

Lucifer, shown by Mr. F. H. Chapman, won the first prize in the class for a single bloom of chalice-cupped Daffodil; second, Mr. J. A. Nix; third, Mrs. Benson.

The finest single bloom of Parvi-Coronati was Horace, also shown by Mr. F. H. Chapman; second, Mr. J. A. Nix; third, Mr. W. A. Watts.

In the class for new seedlings several were shown by the Rev. Haydon, but no awards were made.

Kent and Sussex-raised seedlings.—In order to encourage the raising of Daffodil seedlings a gold medal was offered for the best seedling not yet in commerce raised in these counties. It was won by the Rev. Haydon with new

seedling Pearl of Kent, a cross between Mme. de Graaf and Monarch. Other new seedlings were shown by the same exhibitor, also by Mr. F. Barchard.

For nine distinct varieties of early Tulips, Mr. C. Ball, Rathlin, Ramsgate, was first; second, Mrs. Benson.

Mr. F. Burchard won the first prize for table decoration, and Miss Harcourt was first for twelve vases of hardy spring flowers. There were no entries for six vases of hardy spring flowers.

Mr. Chapman was awarded second prize for a collection of bulbous plants, and Mr. E. W. Nix had the best representative collection of Primroses and Primulas.

There were no entries for six bunches of Anemone fulgens, collection of alpine, and collection of flowering shrubs.

## AWARDS TO NON-COMPETITIVE EXHIBITS.

Silver-gilt medal.—T. Cripps and Son, Limited, Tunbridge Wells (large collection of shrubs, Asters, &c.).

Silver medals.—Barr and Sons (Daffodils); G. Banyard and Co., Limited (flowering shrubs, hardy plants, &c.); John Charlton (miscellaneous); G. Reuthe (Rhododendrons and miscellaneous).

Bronze medals.—Cheal and Sons (alpine and miscellaneous); Arthur Charlton (Tree Carnations, &c.); G. and A. Clark, Limited (alpine, Primroses, &c.); G. Piper (Roses); W. A. Watts (Primroses).

Very highly commended.—Miss Ellen Willmott, V.M.H. (new Daffodils).

Highly commended.—Mr. J. Kingsmill (new Daffodils); Mr. A. C. Teney, Saltwood (flowering shrubs, Daffodils, and a remarkable spike of the Glory Pea (Climanthus magnificus) grown on an outdoor wall without protection, one of the most interesting items in the show).

## READING AND DISTRICT GARDENERS' ASSOCIATION.

ONE of the most pleasant and interesting meetings held by the association was that which took place on Monday, the 9th inst. The committee had arranged two floral and decorative competitions, viz., Class 1, open to all. Bowl of flowers arranged for effect; all work to be done in the room; fifteen minutes allowed for arrangement. Class 2, open to all, excepting head gardeners and foremen. Five small vases of flowers arranged for effect and suitable for a breakfast table; all work to be done in the room; twenty minutes allowed for arrangement. Each competitor worked with the same variety of flowers and foliage, the judges, Messrs. C. Foster, Fry, and Lever, assisted by Mr. T. J. Powell, selected the material from the flowers, &c., brought for exhibition in connexion with the annual "Hospital Night," when members stage bunches of cut flowers which are sent after the meeting to the Royal Barks Hospital. It was gratifying to find that there were nine competitors in each section. The successful competitors in Class 1 were: First, Royal Horticultural Society's A.S. bronze medal, Mr. E. Winsor, Bear Wood Gardens; second, Mr. F. Bright, Whiteknights Park Gardens; third, Mr. C. Chambers, Reading; and fourth, Mr. F. Biggs, Park Place Gardens. Class 2: First, Royal Horticultural Society's A.S. bronze medal, Mr. C. Dealey, Reading; second, Mr. Hoakings, Park Place Gardens; third, Mr. J. Busby, Bear Wood Gardens; and fourth, Mr. F. Barnes, University College Gardens. The vases and bowls were kindly lent by Messrs. Watson Brothers, Minster Street, Reading, and Mr. T. J. Powell. Needless to say great interest was manifested in the work of the competitors by an exceedingly large audience. Over 400 bunches of cut flowers were brought by the following members: Messrs. Bailey, W. Barnes, Blackwell, Bxall, Brown, Cummings, Durrant, Exler, Fry, C. Foster, Godwin, Hinton, Judd, Lever, Nash, Nere, Pounds, Powell, Price, Reeves, Slyfield, Torrey, W. Townsend, H. Wilson, C. Woodford, and Weston. In addition to the "floral gift" to the hospital a collection was taken in the room towards the funds of this institution, and a sum of £2 10s. was realised.

## CROYDON AND DISTRICT GARDENERS' SOCIETY.

THE members of this society at their last meeting had the pleasure of listening to Mr. Wells, who lectured on early-flowering Chrysanthemums. The cultural hints laid down by him were exhaustive, covering the whole period of the year, from commencement of growth to the flowering time and resting period, missing none of the many necessary details this plant requires.

At the conclusion Mr. W. Channon proposed a very hearty vote of thanks to Mr. Wells, which Mr. J. Gregory seconded, and the meeting ended with applause.

A good display of exhibits came from Mr. W. Panley, who staged Streptocarpus. Mr. W. Bentley put up cut blooms of Heliotrope taken from a plant forty years old, while from Messrs. F. Oxtoby and A. Edwards, Schizanthus in excellent variety and form were shown. Through the kindness of Mr. J. W. Potter, Elmwood, Park Hill Road, Croydon, two Odontoglossum crispum, Rosendale and Jeanette, were staged by Mr. W. H. Young.

**A hardy plant society.**—One is pleased to read the excellent article in THE GARDEN upon this subject, and such a convincing statement in favour of the formation of a hardy plant society cannot but have a most appreciable effect in its favour. From what I know I am assured that a well-considered scheme only requires to be begun and its management placed in the hands of suitable men to assure its success. As you point out, the crux of the whole matter seems to lie in the difficulty of securing a suitable secretary. It

would require a man of leisure, and one entirely apart from any trade connexion, the former requirement being especially necessary in the first few years of such a society, the work before it being so vast. Indeed, it occurred to me that a combination of more local societies would almost be necessary if the ground is to be eventually fully covered, with a central body and secretary for co-ordination. I think, however, if a meeting of those interested could be arranged at the time of a show held in some of the Midland towns of England in the ensuing summer it would not be difficult to begin a hardy plant society upon lines which would allow of full development in the future.—S. ARNOTT.

**The spring flowers at Belvoir Castle.**—These are now in full beauty, Aubrietias in various kinds being especially good this season. The flower gardens are open to the public every week day free, and the display will continue for several weeks.

**Croydon Gardeners' Society.**—The 16th annual spring flower show of this society will be held at Horniman Hall, Y.M.C.A., North End, Croydon, on Wednesday next (May 2), from 3 p.m. to 10 p.m. Admission is free.

**Gardeners' Royal Benevolent Institution.**—The "George Monro Concert Committee" has forwarded a donation of £10 10s. to this institution, being part of the proceeds of the recent successful concert at Queen's Hall.

**Presentation to a gardener.**—Mr. J. Jones, who for twenty years has occupied the position of head gardener at Terrace House, Southampton, has been appointed head gardener and steward to Miss Seymour, Knolly House, Wilts. Mr. Jones has been for eighteen years an energetic and much-respected member of the council of the Southampton Royal Horticultural Society, and probably holds the record for attendance at the council and committee meetings. His removal is much regretted by his colleagues, who, to mark the esteem in which he is held, decided to present Mr. Jones with a handsome timepiece. The presentation was made by the Mayor of Southampton at a farewell supper held at the Star Hotel, High Street, on the 17th inst.

## ROSE SHOW FIXTURES IN 1906.

- June 26 (Tuesday).—Isle of Wight.
- " 27 (Wednesday).—Chippenham, Colchester, Farnham, Farnham, Reading, and Southampton.
- " 28 (Thursday).—Canterbury, Norwich, and Walton-on-Thames.
- " 30 (Saturday).—Windsor.
- July 3 (Tuesday).—Harrow and Sutton.
- " 4 (Wednesday).—Croydon, Haling, and Tunbridge Wells.
- " 5 (Thursday).—Royal Botanic Gardens, Regent's Park (National Rose Society).
- " 6 (Friday).—Gresford.
- " 10 (Tuesday).—Gloucester, \*Southend-on-Sea, and Wolverhampton.
- " 11 (Wednesday).—Formby, Helensburgh, and Thornton Heath.
- " 12 (Thursday).—Brentwood, Chipping Norton, Eltham, Potter's Bar, and Woodbridge.
- " 17 (Tuesday).—Saltaire.
- " 18 (Wednesday).—Edinburgh (National Rose Society).
- " 19 (Thursday).—\*Dunfermline.
- " 20 (Friday).—Ulverston.
- " 24 (Tuesday).—Tibbald.
- " 25 (Wednesday).—\*Cardiff and \*Newcastle-on-Tyne.
- " 26 (Thursday).—Salterhebble.
- Aug. 16 (Saturday).—Sheffield.
- Sept. 19 (Wednesday).—Royal Horticultural Hall, Westminster (National Rose Society).

\* Show lasting two days. † Show lasting three days. EDWARD MAWLEY.

## TRADE NOTE.

## "EUREKA" PREPARATIONS.

SOME of the "Eureka" preparations are useful in every garden. They are so numerous as to cover the wants of all who have a greenhouse or garden. At this time of year, when one is making preparations for keeping down insects and plant diseases, it may be useful to mention some of the many useful "Eureka" preparations. Among them are Weed Killer, Fumigant, Insecticide, Heliole Powder, Bordeaux Mixture, Lawn Sand, Hayward's Summer Shade, &c. Full particulars may be had from Messrs. Tomlinson and Hayward, Limited, Horticultural Chemists, Lincoln.

\* The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 2d.

# THE GARDEN.

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MAY 5, 1906.

## WILLOWS FOR BASKET-MAKING.

**P**REFERENTIAL railway and boat rates, aided by keen foreign competition, have well-nigh rendered the time-honoured industry of basket-making a thing of the past in this country. The best classes of Osiers cleaned and ready for manipulation are now delivered to our principal markets from continental sources at so low a price that competition on our part is almost out of the question. There are still, however, a few stations, such as in Bedfordshire, the fen districts of Lincoln and Cambridge, and along certain reaches of the Thames, where Willow culture is engaged in, though not in the same energetic way as was the case some half a century ago.

It is, perhaps, difficult to estimate correctly, but about 7,000 acres, producing roughly 20,000 tons of Osiers, are cultivated in this country at the present time, many small plantations having been grubbed out and the land laid down to other crops during the past five-and-twenty years.

This falling off is much to be regretted, as the sorting and harvesting of Osiers and basket-making gave light and remunerative employment to a large number of residents, both young and old, of the districts in which the Willow-beds were situated; while rather damp land that could not well be brought under other cultivation, at least without the expense of drainage, gave a good return under a crop of Osiers. Taking everything into consideration, and judging from talks that I have had recently with those who are interested in the Osier industry, the formation of Willow-beds, under the plea that considerable profits attend the undertaking, is not to be recommended. No doubt in some favoured districts where carriage is reduced to a minimum and local demand is considerable, Osier cultivation gives a fair return for capital invested; but until we can get back the once lucrative trade in baskets for fruit and other similar commodities from the hands of our continental rivals, profits to any great extent are quite precluded.

No doubt, too, on soil that is unsuited for farming purposes Willow culture can be made fairly profitable, but it is a mistake to suppose that any marshy piece of stiff

ground will grow Osiers, and that the planting and tending are matters of small import. It is quite the reverse. The Willow will not thrive for long in water-logged soils, though periodical inundations, particularly during winter and early spring, are highly beneficial. The soil, too, must be well worked, the cutting of rods carefully and systematically carried out, and the clearing of the ground paid strict attention to, else deterioration of the crop will quickly ensue. Previous to planting the cuttings or sets the ground should be ploughed, harrowed, and consolidated, all objectionable weeds being destroyed.

The best Willows to plant are *Salix purpurea* (the purple Osier), *S. viminalis*, and *S. triandra*; but there are many hybrids, as Willows cross freely. Probably the most valuable is *S. viminalis*, the rods being produced freely, while they are remarkably thin and flexible; but those of the others named are very good for basket-making. They produce exceedingly lithe and tough wands. After the soil has been got into good tilth, planting the sets or cuttings should take place. These should be from 12 inches to 15 inches long and formed of well-ripened rods of one year's growth, the cleanest and straightest portions only being used. In planting the cuttings great caution should be exercised to prevent the bark becoming loosened or removed from the wood. The rows of cuttings may be 50 inches from each other, and individually about 15 inches apart. Much depends upon the kind of Willow and the quality of soil. The cuttings may be inserted about 9 inches into the ground, leaving about 3 inches exposed for the future stool.

Cutting may begin after the second or third year, and should take place when the crop is dormant, or not later than the middle of February. The following short rules might be observed in Willow culture for basket-making:

1. Willows will not succeed well in peaty, sandy, or water-logged soil, rich, well-drained loam that can be flooded at will being most suitable.

2. Prepare the ground by trenching or ploughing, and thoroughly cleanse it from weeds.

3. Plant only the best kinds, avoiding a mixed crop.

4. Insert the cuttings from November to March, avoiding such as are bark-chafed, and make the soil firm.

5. Keep the beds clean and free from weeds.

6. Cut the crop close to the ground with a sharp knife, as pollard Willows soon decay and harbour injurious insects.

7. The cost of forming Osier-beds varies from £15 to £20 per acre. The crop matures in about four years, and yields on an average £15 per acre.

A. D. WEBSTER.

## NOTES FROM GUNNERSBURY HOUSE GARDENS.

It matters little at what season of the year one visits Gunnersbury, there is sure to be something to admire. The most conspicuous object at the time of writing in the way of hardy trees in the pleasure ground is a magnificent specimen of the Yulan tree (*Magnolia conspicua*). It stands at one end of the terrace near the house, is about 30 feet high, and nearly the same in width. The tree is simply clothed with flower-buds (some of them, I am afraid, damaged by frost), but there will be plenty left to provide such a show of lovely white blossoms as is seldom seen in any garden. Why is it this glorious tree is not more planted?

The Japanese garden at Gunnersbury is now far-famed as one of the best formed, and planted with the richest possible collection of plants, both native, sub-tropical, and acclimatised. With such an interesting and matured garden, one would naturally associate the sense of permanency, and that improvement in this direction could go no further. Evidently Mr. Leopold de Rothschild does not think so, for I found the other day that the end of the garden nearest the lake had been moved bodily, and, as it were, dovetailed on to the lower end of the garden, in a position which before was occupied by ordinary shrubs. An ideal position it is, too, for the extension. On one side it is bounded by the high partly broken down wall of an old ruin clothed with Ivy, on another by a high bank planted recently with trees for protection and shelter, and on the third side by the wall garden built and planted so successfully some few years ago. New features of interest and beauty have been added to the extension of this garden, and, with some rearrangement of the older portion, it will issue forth, when the planting is completed, to all intents and purposes a new garden.

It will naturally be asked what has been done with that portion of the Japanese garden nearest the lake from which the Japanese



plants have been removed. Here again the creative genius of Mr. Rothschild and his able gardener, Mr. J. Hudson, have evolved a novel and unique scheme in the shape of a Heather garden. It is formed, as it were, of natural mounds in miniature form—of such mounds, for instance, as one would look for on a breezy rough-and-tumble moorland—and is intersected by roughly flagged stone paths, so disposed as to be convenient for walking upon but quite unobtrusive. These mounds are now planted with autumn-flowering Heather in variety, in bold masses of one sort, in association with alpine Rhododendrons and other peat-loving plants. The new grey and brown warm colouring of this combination of Heather when in bloom in late summer and autumn will form an appropriate and delightful introduction to the Japanese garden from this part of the grounds. Not the least surprising part of these improvements in the grounds of this garden is the wonderful rapidity with which the changes are brought about, and the successful way in which the trees and plants are moved and replanted without any apparent ill effects in every department of the garden.

Preparations are well in hand for planting the blue Water Lily (*Nymphaea gigantea*), which are occasionally exhibited from Gunnersbury at the London and other shows. The way these are grown in this garden is simple and inexpensive. A low pit is formed with a glass span roof, in the same way as one would build for growing bedding plants or forced salads in the winter. Instead of a bed inside a cemented brick tank is formed about 15 inches deep; on the bottom of this tank spaces 18 inches square inside measure for soil are formed by laying loose bricks one on the top of another two or three deep, the plants planted, the water let in, and the work is completed. The labour afterwards entailed in their growth is very little, indeed, compared to the rich return the plants give in the unrivalled beauty and fragrance of many of their flowers. There is a variety named Danbenyana, which used to be grown extensively at Chatsworth. It is the most deliciously scented of all the Water Lilies, and very floriferous, and the colour is light lavender. The tank could be heated by having a flow and return pipe introduced into it connected with an adjacent boiler, or water could be drawn from the nearest hot-water pipes, and the heat regulated in this way. The temperature of the water should range from 60° to 65° Fahr.

I should like to say something about the splendid collection of fruit trees in pots, and the new range of Orchid houses recently built and their contents, as well as about many other seasonable features of interest in this most interesting garden, but space, I know, at present forbids.

OWEN THOMAS.

#### FORTHCOMING EVENTS.

May 9.—Royal Caledonian Show, Edinburgh (two days).

May 15.—Royal Horticultural Society's Exhibition and Meeting.

May 23.—York Florists' Show.

May 29.—Royal Horticultural Society's Show in the Temple Gardens (three days).

May 31.—Bath and Western Counties' Show (five days).

June 6.—Royal Horticultural Society's Colonial Fruit Show.

## PRIZES FOR GARDENERS. MAY.

### VIOLAS (TUFTED PANSIES).

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA  
are offered for the best essay upon "How to Grow Violas."

A simple, straightforward statement is required, dealing with the propagation and general cultivation of the Tufted Pansy or Viola. Give the names of twelve varieties recommended especially for free flowering, describing the colour of each.

The essay (limited to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than May 31. Both amateur and professional gardeners may compete, but it is to be hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS of unsuccessful competitors.

## NOTES OF THE WEEK.

**York Dahlia Show.**—The committee of the Ancient Society of York Florists have decided to extend this show. It will be held in the exhibition, and open for two days; the dates are September 13 and 14.

**National Carnation and Plectes Society.**—The report for 1905 states that "At the annual general meeting, by an overwhelming majority, it was decided that the old system of giving preference to dressed flowers should be discontinued, and that flowers exhibited in their natural state should receive due recognition and encouragement. The committee, with a view of carrying out this strongly-expressed wish, after due deliberation, appointed a sub-committee to draw up a new schedule." We are glad to see that in each of the divisions of the 1906 schedule there are almost or quite as many classes for "undressed" as for "dressed" blooms, and we have no doubt that the next exhibition, which will be held on Tuesday, July 24, in the Horticultural Hall, will gain in attraction, and be more appreciated by visitors than formerly. The hon. secretary of the society is Mr. T. E. Henwood, 16, Hamilton Road, Reading, who will be glad to communicate with anyone interested in Carnations and Plectes.

**The Aberdeen lectures to amateur gardeners.**—On a recent evening the series of lectures given by Dr. J. H. Wilson, St. Andrews, under the auspices of the Aberdeen and North of Scotland College of Agriculture, to amateur gardeners, was concluded, when Dr. Wilson addressed a large audience in the Botany Classroom, Marischal College. Councillor Todd, a governor of the college, presided. In introducing the proceedings, the chairman said that he desired to elicit at the close of the lecture from those who had attended the course an opinion as to whether this course or a similar one should be continued next winter. Dr. Wilson then proceeded with his lecture, and at the close Mr. C. E. France, on behalf of those who had attended the lectures, spoke highly of them, and of the manner in which they had been delivered, and expressed the hope that this course would be only the beginning

of others. Dr. Wilson and the chairman afterwards expressed their appreciation of the remarks of Mr. France, the chairman mentioning that the average attendance at the lectures had been about 120.

**Clematis montana rubens** is very pretty indeed here, and with larger and more numerous flowers in a head than the montana type. It is difficult to describe its colouring. Apple blossom would be nearest if the buds were not so brown—anyhow it is charming.—E. H. WOODALL, Nice.

**Nicotiana Sanderae.**—Readers of THE GARDEN last year doubtless noticed the opinions expressed by some correspondents as to this new and beautiful hardy rose-coloured Tobacco not doing well outdoors. At Kew recently one noted it as flowering splendidly planted out in one of the houses.—QVO.

**Notes from Baden-Baden.**—Notwithstanding the coldness of the weather, blue Primulas and Aubrietias are unusually showy. Among the former there are all shades of ultramarine, and of the Polyanthus strain some bunches show as many as thirty-six flowers. As to Aubrietias, I have succeeded in producing pure tones of white, lavender, rose, rosy lilac, violet, and red lake. Clumps of *Pulsatilla cernua* and *reginiana* are covered with their quaint chocolate-coloured blooms. I need scarcely mention Mr. James Allen's raisings of *Anemone nemorosa* vars. *Vestal* is white, very free-flowering, while *purpurea* has larger flowers of lilac-rose, and *Alleni*, which is the largest-flowered, is snow white, with a flush of purple. *Anemone nikkoensis* from Japan looks promising; it has handsome leaves of a sturdy shape and brightest green, and its flowers are snow white. A new *Tulipa* has turned up from the Afghan frontier; it is remarkable for its small size. It is about 2 inches high. The flowers when fully open are only 1½ inches across, outside red, inside soft white, with markings and blotches of violet, also violet stamens and anthers. It is a very handsome and striking species.—MAX LEICHTLIN, Baden-Baden.

**The Selborne Society.**—Dr. Dudley Buxton, D.Sc., has been elected chairman of the council of the Selborne Society for the ensuing year, during which the society will attain its majority, having been founded in 1885. On the 25th inst., by the kindness of the Civil Service Commission and His Majesty's Office of Works, the annual soirée will be held in the offices of the former in Burlington Gardens, in the buildings which were formerly those of the London University. The president (Lord Avebury) will preside and deliver an address, while there will be an important exhibition of microscopes and natural history specimens. Members may obtain their tickets from the local secretaries, or, in the case of those who are not attached to branches, from the hon. general secretary, Mr. Wilfred Mark Webb, at 20, Hanover Square. Visitors wishing to be present can only obtain tickets through members.

**The indestructibility of life.**—Preaching at St. Michael's Church, Folkestone, recently, the Rev. E. Husband said he had a remarkable illustration of the indestructibility of life. A gentleman resident in Folkestone was given, many years ago, two Beans which had been taken from the coffins of one or two ancient Egyptians. The seeds were probably 2,000 to 3,000 years old; they certainly had been in existence before the coming of Christ. Some few weeks ago it occurred to his friend to sow these seeds. It seemed too wonderful for words, but the result was the plant sprang up after the lapse of ages. He had been allowed to place it over the altar at the services that day, and what a sermon it preached of the indestructibility of life.—T. [We quite thought we had heard the last of this myth. It is the old story of the "Mummy" Wheat.—ED.]

**Destruction of Charlock in Corn crops.**—In his seventh annual report on the destruction of Charlock in Corn crops, Mr. G. F. Strawson, 71A, Queen Victoria Street, E.C., says: "After carefully watching the Charlock spraying operations for the past seven years, we have now reached a period when those who have sprayed well and regularly are able to notice a great diminution in the noxious weed, and have probably gone more than halfway to its reduction to a negligible point. From personal experience I know Charlock can be eradicated from cultivated land, if all reseedling is prevented, in a few years. The heavy loss occasioned by growing a crop of this weed among Corn is fully acknowledged, and is proved by practice to be equal to from eight to sixteen bushels per acre. This loss can be avoided and a profit realised by a single spraying in one year; but by repeating the operation for a few years no reseedling of the land takes place, while the old seed in the land is gradually grown out, and the increased annual value of the land becomes permanent. Charlock, like the Turnip, is a cruciferous plant, and such enemies of the Turnip as club-root and Turnip flea-beetle are nourished and perpetuated by the Charlock during the intervals of the Turnip crop, so that the destruction of this noxious weed is all the more desirable. Young Charlock can be destroyed in growing Corn crops without injury to the latter by spraying with 50 gallons of 3 per cent. solution of copper sulphate (15lb. to 50 gallons) per statute acre, and older Charlock with a stronger solution."

**A Wisbech flower farm.**—The flower farm of Messrs. R. H. Bath, Limited, at Wisbech covers about 1,000 acres, a large portion being devoted to the culture of flowers, particularly Narcissi in great variety. Many favourite sorts are grown in large quantities for market, and all the newer sorts are being tried. King's Norton was among the finest; Glory of Leiden, Glory of Noordwijk, Mme. Plomp, King Alfred, Mme. de Graaff, and many others are grown. Tulips are another feature; the best of the Dutch sorts are found to do very well, and for forcing give better results than the imported bulbs. Yellow Prince, Princess of Austria, La Reine, Thomas Moore, Keizer's Kroon, and other leading sorts are grown in large quantities. Large plantations of the Darwin varieties are looking most promising. Violets, too, are largely grown. Mrs. D'Arcy and Souvenir de Jules Jossé are among the best of the new doubles. Violas in the most distinct shades of colour are also extensively grown. Empress Pansies are coming into flower, and show a remarkably fine strain. Carnations, Pyrethrums, Peonies, Phloxes, and many other plants are very extensively cultivated.

**Primroses at Wisley.**—Among the legacies to lovers of beautiful flowers left by the late Mr. G. F. Wilson at Wisley none just now are, or for some time have been, more delightful than the Primroses which dot the garden in all directions. These are real Primroses, and not Polyanthus, which so many people will wrongly persist in calling Primroses. No effort is spared to keep up the strain to its full beauty. The finest and most richly-coloured flowers are marked, seed saved, and that sown irregularly in patches here and there as if naturally distributed. Blues are still there in plenty, but it is all the same noticeable how many seedlings have gone back to rich reds and crimsons, the colours from which no doubt, aided by the iron in the Wisley soil, the blue tints originally came. In one spot a clump of dark blues, and in another of light or Cambridge blues, had been planted to give the two shades in their progeny. When seen on the 18th ult., bitterly cold as the north-easterly wind then was, nothing anywhere in Primrose time could be more beautiful. How different were they growing thus irregularly amidst shrubs or on banks, or as it were naturally beneath overhanging trees, compared with those planted in beds, yet giving wealth of colour and

beauty such as no breadth of wild Primroses could compare with! There were none seen at the Auricula Society's exhibition that could approach these Wisley flowers in brilliancy and beauty. Every effort has been made to secure the perpetuation of the clear yellow eye well defined within the ground colour, which should mark equally Polyanthus and Primroses. This essential feature to true beauty was lacking in every case in the flowers shown at Westminster on the 17th ult. Why cannot growers of these hardy flowers take their cue in selection from the alpine Auriculas, the glory of which is their clear golden centres?—D.

**Value of Rhubarb leaves.**—I may say that in consequence of the paragraph in THE GARDEN of the 7th inst., I was induced to have some Rhubarb leaves cooked as Spinach. I thought the flavour very pleasant, but after an hour I regretted very much having eaten any, as I was very sick, and was ill all night. Evidently the leaves had not agreed with me.—C. A. T.

## IRIS BUCCHARICA.

ONE of the new plants of the year 1902, this handsome species was awarded a first-class cer-



THE RARE IRIS BUCCHARICA IN THE ALPINE HOUSE AT KEW.

tificate at a meeting of the Royal Horticultural Society on April 8 of that year. Since then it has become an inmate of many gardens, and has fully justified the distinction conferred on it, proving to be a plant of robust habit and very free flowering. A member of the Juno section of the genus Iris, it is closely allied to the well-known and beautiful yellow-flowered *I. orchoides*, from which it differs in having almost sessile flowers of a lighter colour. It was introduced into cultivation by Messrs. Van Tubergen of Haarlem from Eastern Bokhara, where it is found on mountain slopes at an elevation of 5,000 feet to 6,000 feet, growing on the edges of mountain streams. Of erect habit, with stems about 18 inches high, clothed with shining green, arching leaves, it is an admirable plant for a warm, sheltered border. It requires an abundance of moisture when in full growth and deep loamy soil, with which should be well mixed plenty of mortar rubbish.

The flowers are freely produced in the axils of the leaves, and possess a combination of colours which strongly appeals to all lovers

of this beautiful class of plants. The predominant colour is pure white in the upper portion of the flower, with rich golden yellow falls and crest, while a prominent feature is the presence of deeper-coloured veins in the blade. This plant has proved to be quite hardy in well-drained soil. Its value as a pot plant for the alpine house may be gathered from the illustration, which shows a plant in full flower at the beginning of April. The bulbs were potted up in the autumn in loamy soil, and the pans were plunged in ashes for the winter, to be removed into the house as they commenced growth.

Suitable companions for the above, and which flower at the same time, are two others from the same region, which were introduced at about the same time. *I. warleyensis* is a charming plant of the same group, closely resembling *I. orchoides* var. *cærulea*, with flowers varying in colour from pale to deep violet. The deeper shade is upon the blade of the fall, which is again distinctly margined with white. *I. willmottiana* is midway between *I. orchoides* and *I. caucasica*, with lavender or pale purple flowers, blotched with white, and also having deeper purple marks on the blade of the fall. All are quite hardy, and may be grown and established in parts of the

rock garden or select border, where they will increase readily and produce a greater number of flowers annually. W. IRVING.

## DAFFODIL NOTES.

DAFFODILS IN FLOWER AT MOUNT COTTAGE, KIRK, N.B., APRIL 10, 1906.

**I**N sending you the Daffodil flowers this week I have sent some "repeats" to show the durability of their flowering time. Beginning with *N. cyclamineus* I have sent a flower from very dry ground, and one from medium moist ground. You will notice that the flower is larger in the one case than in the other, but no difference in the general character. All amateurs have not streams near which to naturalise this bulb, and often not moist places. They need not deprive themselves of a beautiful object. *N. minimus* is naturalised in grass. My custom is to peel off the turf, plant the bulbs, and relay the turf over them. Experience shows that unless the turf is very thin,

in the case of these very small Daffodils, it would be best to remove the turf, and after covering the bulbs with loam sow upon it some seeds of a dwarf-growing grass. In the case of the stronger-growing Daffodils, which easily pierce the turf, this sowing need not be done, but replace the turf over the newly-planted bulbs.

N. King of Spain is a very fine form selected from N. Queen of Spain; Santa Maria is the richest orange-yellow Daffodil yet found in a wild state, it may easily be naturalised; N. Johnstoni Mrs. George Cammell, I am very glad to find, is reintroduced, as it is a beautiful form in all respects. N. princeps is a single form of N. Telamonius plenus; Bicolor of Tuscany is also a form of N. Telamonius plenus. In a large breadth of N. Telamonius plenus variation will be found, and naturally in the single form we have not yet found a pure yellow variety of this Italian plant. An Italian bulb grower sent out N. King Umberto and Queen Margherita, the one was N. princeps, and the other a variation with more yellow and a stripe down the centre of each petal and a superior flower. Others are N. Frilled Beauty, N. Countess of Annesley, N. Countess of Desmond, N. scotiana, N. Ida, N. Colleen Bawn (naturalised), N. tortuosus (naturalised). For the proposed annual you will find on each label information that may be useful, and for this reason I send you again N. variformis, N. pallidus præcox, and Tenby.

[Mr. Barr's note should be of much interest to Daffodil growers. N. pallidus has been sent from Mount Cottage, Kinn, N.B., for the third time since February 10, the Tenby Daffodil is sent for the second time, and the same with variformis, which has been in flower since March 1. Mr. Barr's comments on the various flowers sent are most instructive. Of King of Spain it is mentioned: "This comes earlier than the Queen of Spain; in a wild state the two grow together. Tortuosus, not known in Parkinson's time, but known early in the nineteenth century."]

#### THE CYCLAMEN DAFFODIL (NARCISSUS CYCLAMINEUS).

ONE is glad to see such an excellent illustration of the quaint little Narcissus cyclamineus in THE GARDEN of March 10, but it is to be regretted that your correspondent "Narcissus" finds that it does not increase but dwindles away in the moist, peaty bed in which it is cultivated. I made unsuccessful attempts to cultivate it before I succeeded, but eventually it became established in sandy peat at the base of a rock garden, where it received all the drainage from the upper part. Here it increased slowly, but still did not dwindle away as it had done in other positions. Last year it had to be removed with my other plants shortly after it had flowered, and it was lifted as carefully as possible with soil attached, the ball wrapped round, and the whole planted in a border in my new garden here, as the place I intended to grow it in was not ready for it. It is at present in flower, and looks none the worse for its removal, although I have not removed it again to its permanent position, where it would look better than in this border, which is of moderately heavy loam. I have an impression that a rather stronger soil than peat is likely to suit it better. As "Narcissus" may know, it grows wild by the banks of streams.

*Sunnymead, Dumfries.*

S. ARNOTT.

#### NARCISSUS AT KEW.

DURING recent days the Daffodils have been one of the chief features in the Royal Gardens, Kew. Naturalised in the woods and among the grass in more open positions, whether growing in small groups or in broad stretches, they are equally beautiful, and certainly more pleasing than when in formal beds. On the left of the Kew Green

entrance, Emperor, Empress, Sir Watkin, Autocrat, and many other varieties form a perfect sheet of colour, while here and there Poeticus ornatus is just making its appearance. A little further on is a bed of the giant trumpet variety Glory of Leiden. The flowers are very erect, a valuable quality lacking in many Daffodils. Another bed close by of Victoria, although past its best, is worthy of notice, being one of the earliest bicolors to flower. The Duchess border is devoted to a collection of between fifty and sixty varieties, in varying-sized clumps of from two or three bulbs to several hundreds. A number of the trumpet section are very fine. Golden Bell is conspicuous because of its twisted perianth; Duke of Bedford, a large bicolor resembling a big Horsfieldii; Weardale Perfection, although one of the largest-flowered trumpets, is not at all coarse, and gives promise of becoming one of the most popular varieties; Mrs. Walter Ware, a strong grower with a prettily-frilled golden trumpet; and Mrs. Camm has flowers of a pale colour, and its habit is very sturdy.

Among the incomparabilis section Gloria Mundi is noteworthy; the perianth is a rich yellow, cup well expanded, heavily stained with orange-scarlet. The Leedsii forms are represented by Duchess of Westminster, Ariadne (a beautiful white flower with a prettily-frilled cup), Mrs. Langtry, Duchess of Brabant, &c. Several of the Barrii section are very beautiful, notably Albatross, Orphée, Sensation, and Seagull. Incognita is the only representative of the new class of hybrids known as Engleheartii. The flower is erect, perianth white, crown yellow, stained pale orange-scarlet.

Two small round beds of the beautiful white trumpet Mme. de Graaff near No. 4 greenhouse are worthy of note. The beds bordering the Broad Walk are this year devoted to some of the better-known varieties, such as Minnie Hume, Frank Miles, Autocrat, Sir Watkin, conspicuous, John Bull, Emperor, Empress, and Beauty.

The woods in the arboretum look very beautiful. So naturally are they planted that, did one not know otherwise, one might be led to believe the Daffodils to be British wild flowers and not garden varieties. The flowers of Emperor and Empress in the Queen's Cottage grounds are scarcely recognisable as these varieties, so large and vigorous have they become.

Unfortunately, in the more exposed positions many of the varieties are fading very quickly, due, no doubt, to the fluctuations of temperature. On Sunday and Monday mornings (April 15 and 16) 7° or 8° of frost were recorded. In the middle of the day on at least two occasions about the same date the thermometer in a screen registered 72° Fahr. Daffodil and Bluebell are the most pleasant seasons of the year in the Royal Gardens. The air seems filled with scent and colour from the waving blooms. A. O.

#### FIFTY FAVOURITE DAFFODILS.

At the exhibition of the Midland Daffodil Society held in April, 1905, the Rev. J. Jacob set up a group of about fifty ordinary varieties of Daffodils under numbers instead of names, gathered from the open ground, and all specially picked blooms, with the idea of finding out the most popular sorts. Any visitor could write on a card the twelve he liked best. About 250 voted, and the following are the first thirty placed in order of merit, Mme. de Graaff heading the list with 187 votes. Queen Bess, with six votes, was the last of the fifty. Mme. de Graaff, Gloria Mundi, Crown Prince, Emperor, C. J. Backhouse, Katherine Spurrell, Barrii conspicuous, Glory of Leiden, Ornatus, Duchess of Westminster, Flora Wilson, Sensation, Sir Watkin, M. J. Berkeley, Falstaff, Golden Spur, Horsfieldii, Lulworth, Beauty, Autocrat, Princess Mary, Campenelle Jonquilla, incomparabilis plenus, J. B. M. Camm, Stella, Grand Duchess, Mme. Plemp, Titan, Mrs. Langtry, and Palmerston.

## THE FRUIT GARDEN.

### GIANT PEAR TREES.

IN Herefordshire, Worcestershire, and some adjoining counties, the Pear may be seen in perfection as regards the attainment of its fullest dimensions. Specimens 50 feet to 60 feet in height are frequently seen, and I am familiar with old orchards where the trees would average from 60 feet to 70 feet, and having been planted somewhat closely, they have assumed quite a columnar habit of growth. At a distance they are often mistaken for Elms, and it has been difficult to convince some, who are only acquainted with the Pear as seen in Southern gardens, that such gigantic specimens can really be forms of the common Pear. In some cases the trees are found growing in hedgerows, both Perry varieties and wild seedlings; but this is not so often the rule as might be with advantage. The natural habit of the Pear especially fits it for growing in hedgerows; it is less spreading than many other trees commonly seen in such positions, consequently the land is not so much overhung by the branches. The root growth corresponds also, in some degree, with the stem habit, for all the main roots descend in a perpendicular manner wherever the soil is favourable and deep enough. Fine specimens cannot be grown on shallow soils, or those with a hard "pan" just beneath the surface.

Seeing that the wood is exceptionally hard and heavy, and when stained is a good substitute for ebony, it is surprising that more trees have not been planted in hedges with a view to utilising both timber and fruit. A variety of Pyrus communis, named Jaspida, is said to possess yellow-striped wood or bark, but I have never seen a large specimen tree, though it is included in the collection at the Royal Gardens, Kew, and in other botanic gardens. It was referred to by London as "Bon Chrétien à Bois Jaspé de Le Bon Jardinier 1836," but whether it is a form derived from a cultivated Pear, or from a wild stock, seems uncertain. Some remarkable evidence was given before the Board of Agriculture Committee on the Fruit Industry in reference to the productive powers of Pear trees. It was stated that some trees had borne 1½ tons of fruits each, or with fifty trees to the acre, when in their prime, 75 tons of fruit had been obtained. These were some of the giant trees here noted, and obviously only in seasons of exceptional abundance would such enormous crops be secured. LEWIS CASTLE.

### COTTAGE ORCHARDS.

It is well Mr. Thomas should ask what is the use of instructing school children in gardening unless they are to have the opportunity to apply practically their knowledge thus gained later in life. Certainly such opportunities will have to be found, indeed there are vast areas of land at home, only waiting for the gardener to apply to them his practical knowledge and skill, to make them productive and profitable. No one need fear the lack of markets for such produce, whether of fruit or vegetables, in this thickly-populated country. The chief difficulty now is getting the produce of the land to the consumer in the most expeditious and cheap way. That can only be done by co-operation on the part of grower and consumer. That we are now in our schools actively engaged in creating literally a legion of young gardeners is certain. Not professional ones in the sense that private gardeners are, but expert cottage and amateur gardeners and allotment workers. In Surrey this year there will be fully 1,000 sturdy boys being taught the gardening art so far as it is possible to do so in small plots, but still under good tuition. The boys are thus being taught labour discipline, the nature of seeds and plants, the uses of manure and tools, also how to work soil properly, and to sow seeds, thin seedlings, to



hoe crops, and generally do good sound practical work. There is in the schools a dislike to mere book teaching, and a greater desire to provide instruction in useful labour. Boys delight in the open-air work, as also do the teachers. It is true little yet can be done in giving instruction in fruit culture, but at some schools permanent fruit stations are being planted. Still the man who can grow vegetables well soon learns also how to grow hardy fruit. A. D.

## THE ROSE GARDEN.

### PRUNING NEGLECTED ROSES.

**I**T often happens that in taking over a new garden one is confronted with a number of neglected Rose trees or bushes. While it is difficult to advise what to do without seeing the special plants, a few general rules should be observed. Frequently the best plan to adopt to enable neglected Roses to recover is to transplant them into soil that has been well trenched. But as the autumn is the time to do such work, we must dismiss this from our present article.

There are practically four divisions into which neglected Roses can be divided, namely: (a) dwarfs or bushes; (b) pillar Roses; (c) standard Roses; and (d) ramblers and climbers.

Taking the bushes first, I would advise that all shoots or growths more than one year old be cut quite down to the ground. The remaining growths would probably be one or two that are soft and pithy, and, perhaps, one that is well ripened and that was produced early last season. Cut down the pithy shoots, i.e., those having more pith than solid wood, and leave the hard growth or growths from 6 inches to 9 inches long. The plants, if healthy, will throw up quite a number of new shoots, which should be well thinned, preserving only three or four of the best which are allowed to grow unchecked until autumn.

In the case of Tea, Monthly, and Polyantha or Fairy Roses, these may be cut down to the ground, and would be all the better for it. If the growths are very forward, care must be taken that they do not "bleed," i.e., lose their sap too much. To check this a little knotting used by painters, if brushed on the cut ends, will stop the bleeding.

As regards pillar Roses, one must not be quite so drastic in their treatment. Cut down one or two of the oldest growths, and the others leave full length. All laterals should be cut in rather hard, say to 1 inch or 2 inches. These pillar Roses should have every encouragement in cultivation, such as forking up around them, then giving some manure on the surface, and during May and June copious doses of liquid manure about once in ten or twelve days.

Standard Roses repay best for transplanting. If they have made a puny, weak growth no pruning will help them, but where growths are strong then cut the oldest back hard. Where the trees have made large heads but have not flowered, do not prune much, but tie over the long shoots in the form of an umbrella. A number of flower-buds should appear all over the growths if the latter are not old. Should they be more than one year old, cut some back hard and the others tie over.

Climbing and Rambler Roses merely require freeing of their oldest wood, some of which appears weak and lifeless. The long and strong shoots of last year retain almost their full length. With such Roses it is the best plan, instead of depriving them of too much growth at this time of year, to open out the growths so that abundance of air and light may circulate freely among them. Rather than have a crowded plant, whether it be on a wall or arch, some wood should be removed entirely, and this should always consist of that old or worn-out.



ROSE AGLAIA IN THE GARDEN OF MME. JAY, VILLA ADELE, BADEN-BADEN.

Doses of liquid manure effect remarkable results in these fast-growing Roses, and those especially that are upon hot walls need attention every three or four days. P.

### ROSE AGLAIA.

THE illustration from Mme. Jay shows the Rose Aglaia in her garden at Baden-Baden. We wish it would always behave itself in the same way here, but our experience is that it is not one of the freest in cultivation. The flowers are half-double, of a delicate yellow colour, and produced in clusters. The growth is very strong. It was sent out by Lambert in 1896.

## THE GREENHOUSE.

### CYCLAMENS TWO YEARS OLD.

**M**ANY interesting notes on these plants have been published in recent issues of THE GARDEN. Unlike Mr. Cox and Mr. F. Owen, I do not think the corms are worth keeping the second year if only sixty or forty flowers can be obtained out at one time. As proof of my statement I would mention my having seen some two-year-old corms in flower last January in Arrowe Hall Gardens, Cheshire (gardener, Mr. D. McPhee). These plants were carrying 100 blooms to each, with vigorous, well-marked foliage; they were growing some in 10-inch and some in 12-inch pots. I quite admit that two-year-old corms are worth growing on if one can obtain results such as these, but not without. At one of our gardening meetings I exhibited some seedlings (seventeen months old) with from thirty to forty flowers on each plant. Some of the blooms were 2½ inches in depth. I have counted seventy buds on one plant. A remarkably quick method of growing these plants is one practised by Mr. Haines, Cloughton. The seed is sown in January or February, and the seedlings are pricked off into a bed in a cold frame and the plants lifted about August. Plants treated in this manner flower in

December, and the number of blooms to each plant is twenty to thirty. I might add that this district has always been noted for Cyclamens. The point is: Do the results from two-year-old corms justify their retention? Landour, Birkenhead. R. G. JAMES.

### SOME NEW FUCHSIAS.

FUCHSIA TRIPHYLLA is a valuable and handsome Fuchsia that is sadly neglected in gardens. Although it has faults, they are far outweighed by its merits. It is not in favour with some because of the liability of the leaves to fall quickly if the plant is not carefully cultivated. Nevertheless its shapely habit of growth and the rich orange-red colouring of its pendent flowers render it a valuable plant. In a German gardening paper, *Möller's Deutsche Gärtner-Zeitung*, Herr Bornemann brings to notice three new forms of Fuchsia triphylla, which have all the good qualities of the latter, and none of its bad ones. The blooms are said to be larger and more richly coloured than those of F. triphylla. Since they retain their foliage well and are of a dense bushy habit of growth, lasting in flower a long time, they are well suited for pot culture. They are also recommended for grouping in the open. The most free flowering of the new forms is Koralle, with beautiful coral-coloured blooms, while its foliage is green and not dark as in the others, and it is the tallest. The variety Gottingen has larger flowers of vermillion colouring, and dark leafage. The third, Gartenmeister Bonstedt, has the largest flowers, which are bright orange coloured, while the plant is of dwarf growth.

### A WINTER-FLOWERING GREENHOUSE PLANT.

(SPARMANNIA AFRICANA.)

THIS flowers in the dull season of the year, and is valuable for that reason. It needs cool treatment, and should not be over-potted; in fact, it flowers better if pot-bound. Cuttings taken now will root under a bell-glass; if when rooted three are put in one pot and the growths pinched they soon make fair-sized plants. It needs plenty of





CYCAS MICHOLITZII.

(Reduced.)

(Shown by Messrs. F. Sander and Sons, St. Albans, at a meeting of the Royal Horticultural Society on the 3rd ult.)

water at the roots when growing, and should be cut back after flowering. This is a useful plant for the conservatory. W. G.

#### LAGERSTROEMIA INDICA.

"Sussex" may be interested to know in reply to his note, page 34, that Lagerstroemia indica is grown in the open in several gardens in the South-west. I saw it in flower against a wall at Trewidden, near Penzance, last autumn, and know good bushes growing at Mount Edgcombe, and on the Undercliff in the Isle of Wight. I have also met with it in other gardens. In some cases, however, although it has made good growth, so far it has not flowered.

S. W. FITZHERBERT.

#### A NEW CYCAS.

CYCAS MICHOLITZII, which was given an award of merit by the Royal Horticultural Society on the 3rd ult., is a very distinct and ornamental species. A generation ago it would have attracted more attention and doubtless obtained a first-class certificate. It was discovered by M. Micholitz when travelling in Annan for Messrs. F. Sander and Sons some two or three years ago. The striking peculiarity of this species is the way in which the divisions of the leaf are in their turn again divided, usually into three or four leaflets, in which respect it stands out from any of the others. Not only is this feature a very distinctive one, but it also adds greatly to the ornamental qualities of the plant, which should become a general favourite if it can be distributed in quantity. It is not often that one has to chronicle the discovery of a new species of Cycas, and still less frequently such a distinct one as this. A glance at the list of plants certificated by the Royal Horticultural Society shows only seven kinds of Cycas, and only one of them has been certificated since the year 1880. Five out of the seven were shown by the late Mr. William Bull of Chelsea, who devoted much attention and space to these plants and

their immediate allies—the different forms of Encephalartos, Bowenia, Macrozamia, Zamia, &c. Though they are rarely met with in gardens, a group of Cycadaceous plants forms a really magnificent feature, as may well be seen in the southern part of the Palm house at Kew, where an unparalleled collection is brought together. T.

#### RHODODENDRON WHITE PEARL.

THE handsome Rhododendron Pink Pearl is so well known that the new variety, White Pearl, needs little description. It is virtually a white-flowered Pink Pearl. It was exhibited by Messrs. Cutbush and Son, Highgate, N., before the Royal Horticultural Society on the 3rd ult., and then received an award of merit. As then shown this Rhododendron was very beautiful, and doubtless will become a valuable plant.

#### THE TEMPERATE HOUSE AT KEW.

A HOUSE TO VISIT.

LARGE plant houses are not, as a rule, pleasing to the gardener, because they do not provide suitable conditions for the plants that are grown in them. With care and skill they may be made attractive to the crowd, who love to see big things, but they are, nevertheless, in most cases, costly possessions. Who does not know the architect's conservatory, with its display of stone, wood, iron, tiles, and statuary, whilst the plants, for which it was expressly built, look unhappy and unhealthy? Here and there one may see a large house where the plants are at



RHODODENDRON WHITE PEARL. (Reduced.)

(Shown by Messrs. Cutbush and Son, Highgate, before the Royal Horticultural Society on the 3rd ult.)

at home, but in these cases it will be found that house and accessories are made subservient to the good cultivation of the plants.

There is no better example of such a house than the great range or block known as the Temperate house at Kew. This is by far the largest plant house in the world, its superficies being nearly two acres, its length 628 feet, the width of the central portion 140 feet, and its height 60 feet. In this house most of the plants are planted out in borders, on about the same lines as in borders in the open air, and it is surprising to many to see how well most of the plants thrive in them. Of course, a great deal has been done to make the conditions with regard to soil, drainage, ventilation, and light all as favourable as possible to the cultivation of plants under glass. Neglect of these most important factors are too often the cause of disaster.

The Kew house was not always what it is now, and we believe it is due to the present curator that a few years ago it was decided to re-make all the borders, putting in agricultural drains, and to re-roof the whole of the old part. The effect of these alterations has been most marked, the health of almost every plant in the borders being now of the best, the growth many of them make being quite astonishing. In the spring time this house is a place of delight to thousands. Acacias, Rhododendrons, Camellias, Correas, Chorizemas, Habrothamnus, Clanthus, Spemannias, Echiums, Genistas, Magnolias, and many of the rarer shrubs from Australia, New Zealand, South Africa, and the Southern United States are then to be seen in flower, not in the form of small pot-grown bushes, but great shrubs, some of them trees even, as vigorous and floriferous as Hawthorn and Laburnum are in the open.

At all times of the year it is a pleasant place to walk in. The paths are made of fine gravel, and the remainder of the floor is devoted to borders of soil about 3 feet deep. The magnificent examples of Araucarias, Palms, Cordylines, Strelitzias, Bamboos, Tree Ferns, Clethras, and Yuccas, which fill the central area, are as fine as can be seen anywhere. The stages that surround the largest division are filled with geographical groups of pot-grown plants, chiefly from Japan and China, New Zealand, Australia, and South Africa. The contents of this house should be helpful to everyone who wishes to furnish a conservatory with suitable plants, and to get an idea of the conditions they require.

The south wing contains plants from Mexico and other countries of similar climatic conditions, the north wing being devoted chiefly to Himalayan and tender Chinese and Japanese plants. This last-named division has lately been replanted, and the Himalayan Rhododendrons, Magnolia Campbelli, Buddleia Colvillei, Tea Plant, Fremontia, Carpenteria, Tricuspidaria, Desfontanea, and such-like shrubs bid fair to make a grand show. In this house there is now a fine group in flower of Jasminum primulinum. Here, too, the yellow Moutan Pæony is quite at home. The group of Vaccinium or Pentapterygium serpens is finer, it is said, than in the Himalayas, whence it was introduced by Mr. Elwes some twenty years ago.

On the whole the Temperate house at Kew ranks among the proudest possessions of the country, and although it cost nearly £50,000 and

its completion was spread over some forty years (1861-99), its present condition more than justifies the cost and time expended upon it.

## THE FLOWER GARDEN.

### NICOTIANA SANDERÆ.

**A**S a winter and early spring-flowering plant, to follow late Chrysanthemums, the above well-known bedding plant should have a good future before it, and become a general favourite where tall flowering plants and cut flowers are in request at this season of the year. So easily does it respond to this treatment that it can be profitably grown both by the amateur and professional. Plants here during February have grown from 3 feet to 5 feet high (heights which are all too scarce in flowering plants at this season), therefore proving most useful when used in con-

days to hasten root-action, afterwards arranging them on a bed of ashes in the open till frosts are probable, when they must be returned to pits or cool houses. A few spikes of bloom develop late in the year; these will prove useful, and the main batch will flower during January and February, when they will become exceedingly welcome. A few strong plants were potted on, for trial, into 8-inch pots at the end of November; these have grown in proportion, forming successional flowers to those in the 6-inch pots.

G. ELLWOOD.

Swanmore Park Gardens, Bishop's Waltham.

### LILIES IN FLOWER.

A VISIT to Covent Garden Market or a peep into some of the principal florists' shops during the winter and early spring months serves to show the great changes that the refrigerating process has brought about in the production of flowers at other than their normal season. It has quite revolutionised the process of forcing, and done



CENTRAL WALK IN THE GREAT TEMPERATE HOUSE AT KEW.

junction with other conservatory or greenhouse plants. For house decoration plants remain fresh fully three weeks. As a cut flower it is very useful, the later buds opening in water. The colours, too, at this season are very bright, and more intense owing, I am sure, to the sunless time, as when planted out in summer this plant appreciates partial shade.

Seed for this purpose should be sown in pots or pans early in May, using a light compost. If placed in gentle heat germination will take place in from eight to ten days. Place a sheet of glass over the pans until the seedlings appear, shading from bright sun. Prick off into pans or boxes when large enough to handle, and later into 3-inch pots, returning them to a shady house or pit. When ready the final potting should take place, using 6-inch and 7-inch pots, and a compost of three parts fibrous loam and one part each of spent Mushroom-bed manure and coarse sand. Place the plants in a cold frame for a few

away with much of the necessity for using great heat. In no class of plants is it more noticeable than in the Lilies. Their flowering season within a decidedly limited number of years was comparatively short. The first break away was when in the early eighties we received bulbs of *Lilium longiflorum* from Bermuda, which, as it was possible to flower them quite early in the New Year, were at first regarded as a new species under the name of *L. Harrisii*. Time has, however, proved that it is the conditions under which they are grown that have given them this early-flowering quality. After this the next step was the retarding process, which has been carried to such a state of perfection that throughout the winter and spring months our markets are regularly supplied with the silvery trumpets of *Lilium longiflorum* and the white and coloured varieties of *L. speciosum*, while, in a lesser degree, blooms of *L. auratum* and *L. tigrinum* are also seen. As the blossoms of *L. longiflorum* can be

obtained in large quantities for decorations at Easter, the Arum Lily, at one time grown almost exclusively for that purpose, is now much less cultivated than was formerly the case. Nearly the whole of the Lilies used for retarding are Japanese bulbs, which fact is brought home prominently to would-be purchasers in a small way at the large auction sales held in London, as they are bought in a wholesale manner for storage by a few dealers. Plants other than Lilliums that particularly lend themselves to retarding are the Lily of the Valley, of which flowers are by this means obtained all the year round, Spiræas, Lilacs, and Azalea mollis. T.

### PINK ANEMONES.

ANEMONE BLANDA is such a valuable plant in the earliest days of the year that a little additional variety in its colour is desired. We cannot but admire the typical blue varieties, which vary somewhat in depth of shade, and some of which are exceedingly beautiful, even in bud, with their bright touch of red or warm purple. Then the lovely variety scythinica, with its white flowers tinged with blue on the exterior, is a charming flower indeed. A pink variety has, however, long been coveted, and for some years those who grow Anemone blanda have expected to find one among seedlings or imported tubers. One of my imported flowers some years ago, when it first opened, was pinkish in colour, but it afterwards approached too near the normal colouring to be considered of special value. In some correspondence I had with the late Rev. C. Wolley-

Dod about that time, he spoke of his desire to find a really pink one also, but said that he had not been able to secure such a flower. Mr. James Allen was, however, more successful, and, as the result of raising seedlings, he has given us a true pink variety which he has named Meteor. Mr. Allen kindly sent me this in August, 1902, and I have since had the pleasure of flowering it, and of finding it really pink, as Mr. Allen described it. Meteor is a very beautiful Anemone indeed, as we may well understand when it was deemed worthy by Mr. Allen of a varietal name. I understand that Mr. Divers of Belvoir has another pink variety of Anemone blanda, but I have never had an opportunity of seeing it. Apart altogether from the beauty of these forms, we have in them great possibilities as the parents of seedlings of even better colour.

*Sunnymead, Dumfries.*

S. ARNOTT.

### CARNATIONS ON AN OLD WALL.

THE illustration is so suggestive that few notes are necessary to accompany it. It shows the great charm of the garden Carnation in the fissures of a wall, and so planted that the flower-stems hang over in untutored drifts. There is nothing formal in this planting of white Carnations, which flowers as freely as the plants in the border. The great point is to push the roots well into the fissure with the soil, so that they can get thoroughly established. Wall gardening is quite simple. Good soil and well-rooted little plants will bring about unexpected results to those who

are unacquainted with this phase of flower culture. We advise the plants to be put in either in early autumn or in spring, and no variety is more suitable for walls than the old sweet-scented fringed white. When the summer is hot a gentle dewing over from the syringe is beneficial in the evening, and this applies practically to all wall plants. The Carnation and Pink have a winter charm, too, as then the leaves are even more silvery in colour than in summer.

### MULE PINKS.

WHERE they succeed, few dwarf border plants make a finer show than these hardy Dianthus. True, they do not possess the delicious fragrance of the ordinary garden Pinks, but their brilliant and freely-produced flowers make up, in part at least, for the want of perfume. Probably the finest variety is the brilliant crimson-scarlet Napoleon III. I am aware that there is great difficulty in some localities in keeping this variety in

health. It has the annoying habit of suddenly dying off at the most unexpected times. After careful study of the plant, I find that the reason for this lies in the fact that it literally flowers itself into such a weak state that it is unable to survive ordinary hardy plant treatment. To overcome this I propagate annually in August. The difficulty of procuring cuttings may be got over by planting a few good young plants on a north border, or by keeping a few of the plants from flowering. I have been successful with these Dianthus on stiff clay soil by simply making a hole about 6 inches deep, and as much across, at planting time, and filling in with good light soil, in which a good quantity of wood ashes was mixed. The first half of April is a good time to plant out these Pinks, and well-tilled and fairly rich soil is essential. Marie Paré is a lovely white sort of strong growth, but it is by no means so free flowering as the above-mentioned red variety. It throws up abundance of cuttings, which are more difficult to root. A good Pink is grandiflora rosea. With it there is little difficulty, and when once planted it is good for three years. It is a grand out flower variety and a most profuse bloomer.

*Preston, Linsithgou.*

C. BLAIR.

### WHITE STOCK RIVIERA MARKET.

THIS sweet-scented variety has much to recommend it as a winter and early spring-flowering variety. Seed should be sown in boxes during June or July, and the seedlings pricked out and potted off at later stages, finally placing three plants in a 6-inch pot. Fully expose them out of doors till autumn, when they should be arranged in cool quarters, never hurrying them to a high temperature until the spikes are well advanced, when they can be placed in gentle heat if required early. Treated thus, useful spikes are assured, with ten to twelve fully expanded blooms on a spike, a good percentage being double. Where white flowers are in demand this is most useful. There is also a rose-coloured variety.

GEORGE ELLWOOD.

### A RARE SAXIFRAGE.

(S. FALDONSIDE.)

RANKING among the rarest and most beautiful of the smaller Saxifrages are those in what may be called the *Boydii* section, of which the type is *S. Boydii*, a hybrid, it is understood, which is the result of a natural cross between *S. burseriana* and *S. aretioides*, probably the yellow form called *primulina*. Unfortunately, however, this plant cannot be successfully grown in most southern gardens, and it thrives with more freedom in its native district near Melrose, where it was raised by Mr. James Boyd of Cherrytrees. In the newer plant, raised by Mr. W. B. Boyd of Faldonside, Melrose, and named by him Faldonside, we have a very pleasing little plant, which can hardly be said to supersede *S. Boydii*, but to supplement it. Its colour is of a paler shade of yellow; the flowers are not only larger but better in form, by being rounder and less starry, while it appears to be even a better grower than the typical *S. Boydii*. It has been placed in the hands of a Scottish nurseryman for distribution, and is only now, I believe, being disposed of. I have known the stock for some time, and I am of opinion that *S. Faldonside* will probably prove itself less difficult to cultivate than *S. Boydii*, which it surpasses in all respects save in that important one of colour.

*Sunnymead, Dumfries.*

S. ARNOTT.

### SOME BEAUTIFUL MONTBRETIAS.

THE section of the genus *Tritonia*, which includes the species and varieties always recognised in gardens as Montbretias, comprises numerous useful and showy plants that are steadily advancing in public favour. In almost any soil which is not excessively heavy or wet they succeed satisfactorily with ordinary attention, and though autumn planting is often recommended,



CARNATIONS ON A WALL.

I have planted them in early spring as soon as it can be done with safety, and the results have been equally as good as from those planted at the other period. In one character they are especially valuable to town and suburban amateurs or gardeners, namely, they endure unfavourable atmospheric conditions far better than many bulbous plants do, producing an abundance of their brilliant flowers over a considerable portion of the summer months. The species, *Tritonia Pottii*, with bright orange-red flowers; *T. flava*, clear yellow; *T. rosea*, rich soft pink; and the hybrid *T. crocosmiflora*, which unites the characters of *Crocosmia aurea* with those of *T. Pottii*, are still among the best that can be grown, but varieties and crosses derived from them are now very numerous. For general attractiveness and hardy, floriferous habit the following are notable: Yellow flowers—*Geo. Davison*, *Soleil Couchant*, *Solfatarre*, *Excelsior*, and *Yellow Queen*. Vermilion and red tints—*Bouquet Parfait*, *Ceres*, *Fiery Star*, *Germania*, and *Oriflamme*. Golden and orange shades—*Eldorado*, *Feu d'Artifice*, *Figaro*, *Drap d'Or*, *Gerbe d'Or*, and *Prince of Orange*. Particoloured—grandiflora, scarlet and yellow; *Vulcan*, deep red and yellow, with purple spots; and *elegans*, yellow and crimson. A really good pure white variety would be a splendid companion for these, but I do not know one, though some of the palest yellow-flowered forms approach very near to white. L. C.

## TREES AND SHRUBS.

### GARRYA ELLIPTICA IN SCOTLAND.

SINCE writing my former note on *Garrya elliptica* I have had the pleasure of seeing a large plant in bush form at The Grove, Dumfries, where there are several large specimens. The best is 10 feet high and 12 feet through. Mr. Gardiner, the gardener at The Grove, informed me that another fine one had been killed by an unusually severe and protracted frost about twenty-eight years ago. That was, however, the longest and most severe winter within record, and followed upon one also more intensely cold than usual. The present plants are in the front of a shrubbery, and are sheltered from the north by other shrubs and a plantation. S. ARNOTT.

*Sunnymead, Dumfries.*

### THE POISON IVY.

THE Poison Ivy of the United States is occasionally grown in this country, where its poisonous effects are hardly known and excite little alarm. Disagreeable effects are, however, apt to follow the use of its autumn-coloured leaves for table decoration. In the *Kew Bulletin* an article on this subject by Dr. Franz Pfaff of the Harvard Medical School, Boston, is reprinted. Dr. Pfaff says that the active principle of the Poison Ivy is an oil, which he has named "Toxicodendrol." This can be found in all parts of both *Rhus Toxicodendron* and *Rhus venenata*. "Toxicodendrol" is not a volatile oil, but, on the contrary, is very stable. One must endeavour to remove it as quickly as possible and prevent its spreading. This can be done by vigorously washing the affected and exposed parts with soap and water and a scrubbing brush; that is to say, by mechanically removing the oil. As the active principle is very soluble in alcohol, other processes may be employed to remove the oil. The exposed parts may be washed repeatedly with fresh quantities of alcohol and a scrubbing brush. The poisonous oil may be thus removed in alcoholic solution. The washing must be done thoroughly when alcohol is employed, as otherwise the alcohol might only serve to distribute the oil more

widely over the skin. The finger nails should be cut short and also perfectly cleaned with the scrubbing brush. Oily preparations, or anything which dissolves the poisonous oil, if used, should be immediately removed, as they may only spread the poison, giving it a larger area on which to work. The treatment above outlined cannot cure the already inflamed parts, which must heal by the usual process of repair; but it does prevent the spreading of the inflammation, and may serve to remove the poison before it has had time to produce its characteristic effects upon the skin.

### DIERVILLA (WEIGELA) FLEUR DE MAI.

THIS pretty Weigela, which has been exhibited during the present spring as flowering specimens under glass, bids fair to become popular for this purpose, as it is a decided break away from most of the subjects so treated. It belongs to an early-flowering race of these plants, the first member of which was *W. praecox*, distributed by M. Lemoine of Nancy about ten years ago. At that time it attracted a good deal of attention owing to its early-flowering qualities. The flowers of this variety are deep rose, marked with carmine and yellow in the throat. Other varieties remarkable from the early period at which their flowers expand were soon sent out from the same nursery, the first two, distributed in 1899, being *Fleur de Mai*, the subject of this note, whose flowers when in the open ground are of a purplish rose tint, with the buds clear purple; and *Bouquet Rose*, which is of a pleasing satiny rose colour. Since then other forms of this section have been put into commerce by the Nancy firm. Though the great merits of the different Weigelas as flowering shrubs in the open ground have been long recognised, their value for blooming under glass has been up to now to a great extent passed over. H. P.

### CEANOTHUS RIGIDUS.

A SPECIMEN of this trained to the wall of the herbaceous ground at Kew was in full flower in the middle of April, and the pleasing blue of its blossoms was a decided change from the whites, yellows, and pinks which predominate among the trees and shrubs in flower at this season. It is a shrub of erect growth, with rigid branches clothed with dark green leaves, coarsely toothed at the apex. They are about half an inch in length. This *Ceanothus* is a native of California, and was first introduced by Hartweg, one of the collectors sent out by our horticultural society about 1848. From its early flowering and distinct colour this *Ceanothus* deserves to be more frequently planted than it is. It is not sufficiently hardy to stand as a bush in the open ground; it needs, even in the neighbourhood of London, the protection of a south wall. T.

## THE KITCHEN GARDEN.

### HOW TO GROW MUSHROOMS IN THE OPEN.

[In reply to "S. O."]

IT does not matter very much as regards the position of the proposed Mushroom-beds, whether they are in the sun or in shade, but they must be placed in a sheltered position, well protected from north and east winds. It is too late now to make the beds up for this summer. (They never do well in hot weather during the height of summer.) The best time to start forming the beds is any time in September, and in succession afterwards as manure is available any time up to the middle of March following.

As regards manure, no other than fresh horse manure, with half the strawy litter mixed with it, will do. That from corn-fed animals is the best. Until sufficient manure is collected, say, to make a cartload, it should be spread out thinly and preserved from too much wet. When a cartload has been collected it should be made into a heap and left so until it is well heated, which will be in about nine days. It should then be turned over and left to cool for an hour, when it should be put up again to heat in the same way, for the same time, when it must be turned over again and allowed to cool. It will then be ready to form the bed. The bed should be made in the form of a row of Celery when it is earthed up. The dimensions should be: Width at the bottom, 2½ feet; height at the top of ridge the same (2½ feet).

In the course of a week or ten days the heat of the bed, if all has gone on well, will rise probably to 85° or 90° Fahr. When the heat has fallen from these figures to from 70° to 75°, then it will be time to insert the spawn. In making, the bed must be pressed firmly. The spawn is sold in cakes of 9 inches by 5 inches as a rule. These should be broken by hand into six equal pieces, forced and pressed hard into the surface of the bed (all over) at distances of 8 inches apart, holes being made for their reception deep enough for the pieces to sink into the bed half an inch below the surface. Cover the spawn over with manure, well pressing it down. In the course of two or three days the bed must be cased over with soil (half an inch deep when well beaten down), damping the surface, and making it smooth as if plastered with mortar, in order to prevent the heat of the bed from evaporating; ordinary garden soil will do.

The next thing will be to cover the bed over with dry straw, Bracken, or other litter in sufficient quantity to maintain the temperature of the bed at from 55° to 60° Fahr. The bed need not be uncovered for the next five weeks, when the litter should be taken off and a slight watering with tepid water given to the bed. Let it be covered over again and the same temperature maintained, and in another fortnight uncover again to look for Mushrooms, when you ought not to be disappointed. Afterwards Mushrooms should be gathered twice a week for a matter of six weeks or two months. The surface of the beds should be kept moist by occasional waterings. It is not necessary to expose the whole of the bed at each picking, only lifting the litter up and placing it down after the picking is done. When successfully grown the Mushroom is a very profitable crop to grow, but it is not everyone who succeeds in their culture, and we would advise you to start on a limited scale until you attain success and confidence in their growth. There is a good market for them all the year round.

### CAULIFLOWER EARLY GIANT.

OF this variety I grow a good number of plants, as it comes into use some time before that indispensable variety Autumn Giant. It is of strong and robust growth, and in dry weather is not so liable to produce thin looses "curds." The flavour is mild and the "curds" are thick. To grow this vegetable the land must be well manured and deeply cultivated so as to encourage the roots to descend a good depth after moisture and food; they are then better able to withstand a spell of dry, hot weather. H. MARKHAM.

### EPICURE RUNNER BEAN.

THE pods of this variety, so abundantly produced, are excellent when gathered very young, but, apart from this quality, it is a variety that is comparatively stringless when some others are past using. It is very fleshy and brittle, and altogether an excellent Bean to grow. Two or three sowings should be made to keep up a long supply.

H. MARKHAM.

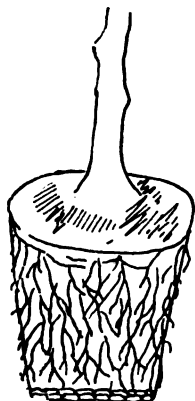
*Wrotham Park Gardens, Barnet.*



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**PLANTING VINES.**—Vines are best planted some time during the summer, when they are growing freely. If possible, do not delay planting young Vines after June or July; they are then making roots freely, and will quickly take hold of the new soil. Until required for permanent planting, young Vines are usually cultivated in pots. Care is necessary when taking them out of the latter not to break or damage the roots. Take care that the hole made to receive the Vine is so large that there is a clear space of 12 inches around the roots. Remove the surface-soil, disengage some of the roots that will have probably become matted together in the pot, remove the crooks, and spread out the former as well as possible. If the mass of soil and roots be left intact, as taken from the pot, it is likely to become dry, and the roots also cannot push into the new soil when they are matted and twisted together. Arrange the roots, as far as possible, in different layers, placing them out carefully in a horizontal direction. After covering over one layer with soil, make this firm before placing on the next. The uppermost roots may easily be kept back until required by turning them upwards to the stem; keep them down by means of pieces of turf. Do not plant the Vines (supposing the border to be inside) within 18 inches of the hot-water pipes, and, if planted outside, place them as near to the

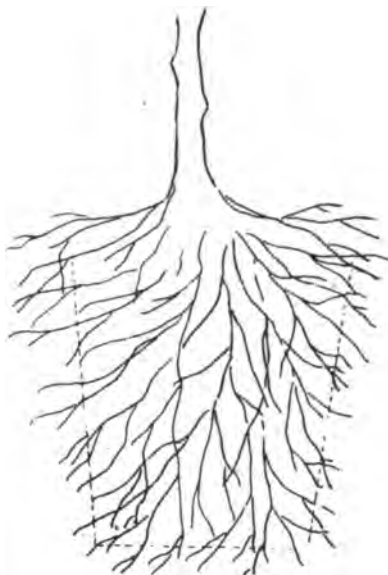


POT VINE, AS IT APPEARS WHEN REMOVED FROM THE POT.

while Foster's Seedling, Black Hamburg, and Lady Downe's Seedling do not require more than 3 feet. When hard forcing is practised for a supply of early Grapes, the Vines will be wide enough apart at 2 feet 6 inches. Always make sure that the Vines are thoroughly well watered before being taken out of the pots. If dry when planted, it is difficult to water them properly afterwards. Instead of running through the hard mass of soil and roots, the water makes its way into the more porous border, leaving the former quite dry, although this perhaps may not be found out until the plant begins to suffer.

**Thinning Seedlings.**—The accompanying sketch shows the result of thinning Carrots properly and the evil effect of neglecting to thin. It serves to draw attention to the importance of thinning seedlings in general. At this time of year the ground is more or less full of seedling plants, and thinning is now one of the most important gardening duties. Those who have

never thinned seedlings properly, especially the seedlings of quick-growing annual flowers, cannot have had these plants at their best. They grow quickly, and if allowed plenty of room in which to develop, each plant will soon make a good specimen. If, however, the seedlings are allowed to remain thickly clustered, the result will be a mass of weakly, short-lived plants that will flower indifferently. Seeds are usually sown too



POT VINE, AS IT SHOULD BE PREPARED FOR PLANTING.

thickly, but even this may be remedied if thinning is practised thoroughly. Take the Sweet Pea for instance. Some of the best growers thin out the seedlings to 4 inches, 6 inches, or even 8 inches apart. Of course, one can hardly advise beginners to follow this plan, but it serves to show that the best results follow when plants are given room in which to develop normally. Unless Sweet Peas were in thoroughly well-tilled and well-manured land, it would be foolish to thin them out to 6 inches apart. Not only do plants flower more freely when they have proper room, but they last a good deal longer in bloom.

**The Canary Creeper.**

This half-hardy annual climbing plant is distinct and attractive, and very useful for many purposes in the garden. It differs from the ordinary climbing Nasturtium, in that it needs rich soil to ensure a satisfactory growth, while the ordinary climbing Nasturtium will not flower well unless it is grown in a poor soil. If planted in a well-enriched soil, the Canary Creeper will make vigorous growth, which will be covered with the bright yellow pleasing flowers throughout the summer. While the ordinary climbing Nasturtium is hardy, and the seeds may be sown out of doors, the Canary Creeper is half-hardy only, so that the seedlings

must be raised in a frame or given some protection. The seedlings should be planted out when danger from frost is over.

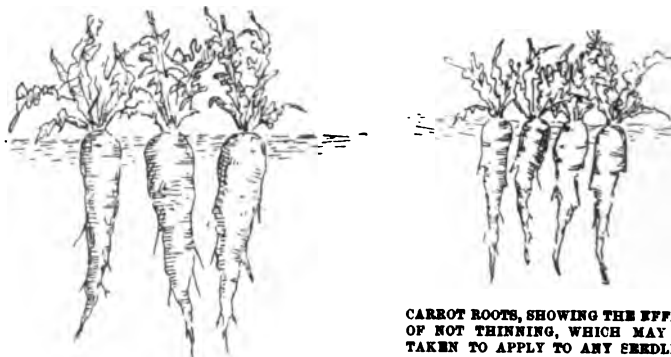
**Godetias.**—There are few more satisfactory annual flowers than the Godetias, and they are quite as easily grown as any other. The flowers may now be had in a variety of colours, and the plants last in bloom for a long time. For massing in beds and borders it is one of the best and most effective of all annuals. To produce a display during the coming summer, seed should now be sown in the open ground. Each plant must be allowed plenty of room, so that it can grow strongly. If the seedlings are allowed to remain crowded, the plants will be weakly, the flowers will be poor, and the season of blossom comparatively short. The Godetia is naturally a strong grower, and needs plenty of space for its proper development.

**Ten-week Stocks.**—If the garden soil is light and well drained, Ten-week Stocks can be grown most successfully from sowings made out of doors at this season. It is as well to sow thickly, for if the weather is unfavourable some of the seeds may not germinate. If, however, they germinate well, the seedlings must be thinned out. These Stocks like a rich soil, and rarely give satisfaction if the soil is poor. If the soil is heavy it is not advisable to raise them in this way, for very probably the seed would fail to germinate. The seedlings must be protected from slugs by a dusting of soot or in some other manner.

**Phlox Drummondii.**—This valuable half-hardy annual has been improved considerably during late years, and the new forms are greatly superior to the older ones. This Phlox lasts in flower throughout a long period, and in this respect is perhaps most valuable of all half-hardy annuals. If the seed was sown in March as advised, the plants will soon be ready for transferring to the beds and borders where they are to flower. In order to have them at their best, plants of the large-flowered sorts should be planted 18 inches or 2 feet apart, but the dwarf varieties need not be more than 9 inches apart.

## TOWN GARDENING.

**Tomatoes Out of Doors.**—The Tomato may be most successfully grown out of doors, at any rate



CARROTS PROPERLY THINNED.

CARROT ROOTS, SHOWING THE EFFECT OF NOT THINNING, WHICH MAY BE TAKEN TO APPLY TO ANY SEEDLING PLANT.

in the South Midlands on a warm border, or, what is even better, against a warm wall or fence. In a favourable summer they may be grown perfectly well on an open border, but if the season is comparatively useless, it is more than likely the fruits would not ripen. It is safer, therefore,

to put out the plants on a border at the foot of a wall or fence facing south or south-west. The most important point in the cultivation of Tomatoes out of doors is to have good strong plants ready for planting out by the end of May or very early in June. With this end in view, therefore, the plants should have been raised under glass, and be gradually hardened off preparatory to being planted out of doors. It is thus too late to sow the seeds now, and if no plants have been raised they should be purchased, which should be done at a very small cost. It is useless attempting to grow Tomatoes out of doors unless one has good plants to plant out at the time mentioned above. It is not advisable to make the border too rich, otherwise plants will grow very strongly and probably produce few flowers. Each plant should be confined to a single stem, and take the earliest opportunity of fertilising the first flowers that are produced, for the earlier the fruits are formed the better chance the fruit will have of ripening. The plants should not be stopped until at least two good bunches of flowers have been produced and the fruits have set. When it is seen that the fruits have formed, the tip of the shoot should be pinched out and side shoots or laterals, which will be produced in the future, must also be stopped. During the summer the largest of the leaves may be cut back to half their length, so as to allow the sunlight to reach the fruits. During hot weather the plants must, of course, be kept well supplied with water, and once or twice a week they should be watered with liquid manure after clear water has been applied.

## THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, W.C.

### SCHIZANTHUS WISETONENSIS.

Mr. Batty sends from Skelton Castle Gardens, flowers of the pretty *Schizanthus wisetonensis*, which are delicate in colour and dainty in shape. Our correspondent writes: "We find the *Schizanthus* at this time of year most valuable for table decoration. It is also useful in pots for standing singly in the rooms. We have fifty plants in full bloom in the centre of our greenhouse, and they are a beautiful sight at the present time. There is great variety in the colouring. We saved our own seed from the old plants of *wisetonensis* last year, and the flowers are above the average size, and the marking more varied than usual. The plants are in 7-inch pots."

[A more charming series of colours we have not seen.—ED.]

### ISMENE CALATHINA GRANDIFLORA.

Mr. Batty also sends a flower of this charming *Ismene*. "I was pressed to try a dozen bulbs last year and laughed at the idea. However, the flowers are most useful, and half-a-dozen of them will scent a whole house. We grew the bulbs in the stove, and they seem to be quite at home there."

### ANEMONE PUIGENS

From Croghan House, Boyle, Mrs. Merrick Lloyd sends a beautiful lot of flowers of this *Anemone*, "which grow like weeds in this garden,

and flower freely for more than three months on end. Many of the flower-stems are quite 13 inches long. They make a beautiful bright bed or border."

### POLYANTHUS AND DOUBLE WALLFLOWER.

From Trusley Manor Gardens, Etwell, Mr. E. Clements sends some very fine *Polyanthus* and a few flowers of the old double orange-yellow *Wallflower*. The former have large flowers in many rich and varied shades of colour. Mr. Clements says they have made a grand show for some time. The old double *Wallflower*, he writes, is seldom seen. It has been out all the winter at the foot of a south wall.

### RADISH SUTTON'S EARLIEST OF ALL.

From Woolland, Blandford, Mr. J. Harris sends some *Radishes* of the variety *Sutton's Earliest of All*. He rightly describes it as an excellent little *Radish*. Mr. Harris writes: "It was grown in the open border. Sown on March 3, it was fit for use on the 17th ult.—a fact which, I think, fully justifies the name given it. Considering the inclement weather we have had, its earliness is particularly noteworthy. Readers of *THE GARDEN* who have not tried it should do so."

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**H**ARDY FLOWER BORDERS.—Weeds grow apace, and must be kept under. In many herbaceous borders colonies of precious little plants are growing so thickly as not to admit of the use of the hoe, or the plants would be damaged; consequently recourse must be had to hand weeding, but wherever it is practicable the hoe should be used frequently. Hoeing is of the utmost importance, especially as mixed herbaceous borders are not now subjected to the annual digging, with the resulting mutilation of roots, as was the custom a few years ago. A mulching given when the plants are in active growth, the manual properties being taken directly to the roots by rains just when they require it most, is infinitely better than digging in quantities of manure, and at the same time chopping off all the principal roots. The yearly repetition of such treatment did much to rob our borders of some of our rarest plants. Many early-flowering subjects will now need support. Perennial Peas should be staked early. *Paeonies*, *Delphiniums*, *Oriental Poppies*, *Lupines*, *Galegas*, *Helentiums*, the larger *Campanulas*, and all plants of strong, heavy growth are so liable to be broken down by winds. These must be supported by sticks in the early stages of growth. I do not advocate staking and tying everything up, but only those especially liable to injury. As most plants are in groups, I find a few sprays of *Pea-sticks* placed around and among them to be all the support they require, and by the time they reach the flowering stage the plants practically hide up all the sticks.

**EREMURI** are now pushing their flower-spikes. It is advisable not to tie these flowers up to sticks, as they are more liable to be snapped off just above these by winds. A good mulching was recommended a few weeks since; now they will be greatly benefited by copious supplies of water, to be continued till they have finished blooming.

**PITS AND FRAMES.**—These are now full of bedding plants that will need considerable care and careful attention. Those established in pots and boxes will need much watering. The lights must be removed from the frames in fine weather. To keep all established plants as sturdy as possible, every available warm corner will be utilised for plants turned out of frames gradually to harden

them, so that they do not suffer from exposure when they are transferred to the flower garden. G. D. DAVISON.

Westwick Gardens, Norwich.

### FRUIT GARDEN.

**SEASONABLE WORK.**—The chief work in the outdoor department is that of protecting trees from frost, where necessary, and disbudding superfluous shoots on established trees stopping all young shoots required for forming fruit-spurs, and nailing or tying in growths required for extension or for fruiting the following season. Great care is necessary when fastening up these tender shoots in order not to bruise them. All ties should be of sufficient length to allow of the proper swelling of the wood. An effective means of securing the young growths on walls is to collect a quantity of the thin shoots of any free-growing deciduous shrub or tree that may be at hand. Cut into convenient lengths of 5 inches or 6 inches. These are placed transversely across and over the young growths, and the ends are pushed beneath the older wood already secured to the wall. Watering and mulching are needed after the continued drought.

**CHERRIES** that have not had their fruit-buds well thinned out before coming into flower generally set an enormous crop of fruit, but they sometimes cast a large number of fruits before stoning. The borders should be carefully examined, and water afforded where necessary. Cherries do not require much disbudding; merely remove those shoots which spring from the back of the branches, and thin those growing in clusters to prevent overcrowding, training in sufficient for the extension of the branches or for renewing worn-out shoots and furnishing blank spaces. All other shoots should be pinched at the third leaf. Cherry trees are subject to attacks from black fly, and on its first appearance means should be taken to destroy it by syringing or spraying with an insecticide.

**VINERIES.**—Vines planted lately should be encouraged by heat and moisture until they are in active growth, after which air should be allowed freely. Vines raised from eyes this spring should now be ready to plant, and whether they have been growing in pots or masses of turf, they should be thoroughly moistened before planting. The soil of the border should be made firm about the roots, no attempt being made to uncoil or loosen the roots which are in active growth. Apply tepid water gently when the job is finished, and keep the house warm and moist. Grapes that are swelling should be afforded liberal supplies of tepid liquid manure from the cow sheds. If red spider is apt to infect the Vines it is better to syringe the foliage occasionally rather than allow it to gain a footing, but only clear soft water should be used. Over dryness and starvation at the roots are fruitful causes of red spider on Vines, especially on light soils and dry localities. A mixture of sulphur and milk made into a fine paste and painted over the hot-water pipes serves to arrest the attacks of red spider. In a preparation called *Spidicide* we have found a most effectual wash for eradicating red spider, and have used it mixed with sulphur for painting the hot-water pipes in vineries with good results. In the early vineries, where the fruit is approaching ripeness, the temperature should be considerably lowered and the moisture gradually withdrawn.

Glamis, N.B.

THOMAS R. WILSON.

### KITCHEN GARDEN.

**POTATOES** from early plantings will require earthing up. A fine dry day should be chosen for the operation, but before doing so give the ground a careful hoeing with a flat hoe. Draw the soil up as high as possible, if a few of the tops are completely covered it will not matter, and they will also be the more secure from frost. When earthing up care should be taken to make

the ridges and little trenches perfectly straight and even.

**Peas**.—Do not neglect staking Peas; the sooner it is done after drawing soil up to the sides of the rows the better. Allow a fair space between the Peas and the sticks, which should be thrust firmly into the ground, leaning them slightly towards the Peas, but not close enough at the top to cross. Rough and loose pieces can be cut off with shears. I strongly advise mulching Peas between the rows with good manure; a layer 3 inches to 4 inches should be given. Mulching is best done soon after the sticks are put in, and where Spinach is grown between the rows before the Spinach gets very high, but summer Spinach soon recovers from a little knocking about. The manure for mulching need not necessarily be quite decayed, though perfectly fresh farmyard manure should be avoided.

**Beet**.—The main crop should be sown within the next few days; if sown much earlier the roots grow to an unsuitable size for use. The soil must be in good order and well worked; no fresh manure should be in the ground. Sow in drills about 1 inch deep, and from 15 inches to 18 inches apart. If plenty of room is not allowed, the leaves, being more brittle than Carrots and Parsnips, get broken with the hoe in early summer. Small and medium-sized Beet are generally most in demand. Dall's Crimson and Nutting's Dwarf Red are good reliable varieties and not too big. Of larger-growing varieties Pragnel's Exhibition and Veitch's Selected Red are to be recommended.

**PLANTING**.—Brussels Sprouts, Cauliflowers, and Cabbages that have been pricked off should now be fit for planting out. If possible choose a damp day for this operation. Brussels Sprouts should be allowed if possible 3 feet between the rows and 2 feet 6 inches between the plants. For Cauliflowers, such as The Pearl and Sutton's Purity, 18 inches to 20 inches each way is plenty. Walcheren Cauliflowers will require a little more room. Red Dutch Pickling Cabbage should be at least 2 feet each way; smaller varieties of Cabbage will require considerably less. Lift carefully to preserve a good ball of soil to the roots, plant with a trowel, and make the ground firm after planting. Slugs, I think, are best destroyed by frequently hoeing the ground, dressing with soot and lime, or, where the ground is badly infested, by searching for them in the morning. Damage done by wood pigeons is far more serious, and is generally done in the early morning or late in the evening. An old suit of clothes stuffed with straw and stuck on a pole is a good thing to scare them away, or shoot three or four of the pigeons and stick them up in the bed.

J. JACQUES.

Bryanston Gardens, Blandford, Dorset.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers**.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 80, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

### FLOWER GARDEN.

**DAFFODILS NOT FLOWERING** (M. H.).—There is no doubt that the soil around your Daffodils is impoverished, and the bulbs have become crowded together. When the foliage has died

down you should take up the bulbs, grade them, keeping the large and small separate. Then dig the soil deeply, enriching with some well-decayed manure, and replant the bulbs at proper distances apart, according to their size. Your Daffodils should be taken out and replanted in well-cultivated soil every two or three years, otherwise their flowering will continue to be unsatisfactory. It stands to reason that they cannot continue to produce flowers unless you give them room and good soil in which to grow.

**EOHIUM WILDFRUIT** (A. E. Porter).—This plant comes from Madeira, and first flowered in this country in the year 1897. It is a striking plant of biennial habit, forming the first year a dense rosette of long, narrow silky leaves. In the second year the stem lengthens, ultimately forming a dense thyrsoid panicle of rose-pink coloured flowers. It is of fairly easy culture, succeeding well with ordinary greenhouse treatment. It should be potted in a mixture of fibrous loam, leaf-mould, and sand, giving it plenty of root-room. When the plant is in full growth from about March through the summer, it should be supplied with plenty of water, but during the winter months little is required, as it is liable to damp if kept too wet at the root. The best place to keep it during the winter would be a heated frame, where it could be placed close up to the glass.

**VIOLET PLANTS FAILING** (X.).—The specimen plant of Marie Louise is in good health, considering it has passed through the late winter. All that is the matter with it, as far as we can see, is that a few of the older leaves have suffered from a mild attack of red spider. The season for Violet flowers will soon be over, and attention directed to the propagation of young plants for next winter and spring supply of flowers. In selecting divisions of the plants to propagate from, extreme care should be taken to select those only which are strong, healthy, and perfectly free from any traces of spider or disease. As regards the large single variety, which we take to be Princess of Wales, it is suffering from a severe attack of a species of Violet fungus. At so late a season of the year it would be useless to treat these plants with a view of trying to destroy the fungus. The better way will be to pull up the affected plants and burn them, and to propagate young ones from clean and healthy stock only. You will find that these strong-growing single Violets will stand the winter better and be more immune from the attacks of insects and disease if grown on more exposed land and with less shade than is usually given to them.

**WATER LILY FLOWERS OPENING** (Alice Stieh).—In all probability the major portion of the Water Lily flowers are used for table decoration and similar purposes. These flowers may be prevented from closing by going over them when they are fully expanded with the finger and thumb, and bending each petal so that the upper or inside part is convex, whereas naturally it is concave.

### THE GREENHOUSE.

**HEATING GREENHOUSE** (Enquirer).—You do not say what class of plants you purpose growing in the greenhouse, but if small ones, to be used for summer bedding are to be kept therein, an ordinary step stage in about three tiers is almost essential. If a stage 3 feet wide is fixed all along the front of the house it will be available for small plants, and the interior might be furnished pleasingly by forming a bed and planting the body of the structure with permanent plants. As the structure is 14 feet wide, the 3 feet stage, with a path 2 feet 6 inches both back and front, will leave 6 feet of floor space for the bed. Such plants as Camellias, Greenhouse Rhododendrons, and Acacias would, even when out of flower, be effective from an ornamental point of view, and with them may be associated different flowering subjects. Again, if large plants in pots are available the central bed may have a neat kerbing put round it, and be surfaced with a layer of Derbyshire spar, on which the plants

may be placed. The ordinary clear glass is the only kind that can be used with satisfaction in a greenhouse, and for shading nothing is equal to canvas blinds fixed on wooden rollers, which can be let down or drawn up at will.

**STRAGGLING GERANIUMS** (E. B.).—Shorten back any straggling shoots, repot in a mixture of loam, leaf-mould, and sand, and place in a good light position in the greenhouse, taking especial care not to give too much water till the roots are active. If you have no greenhouse, place in a light spot in a window.

### TREES AND SHRUBS.

**PROPAGATING BOX** (E. B.).—If the question of propagating Box refers to the Box edging, it may be taken up, pulled to pieces, and replanted towards the end of March or in April. The ordinary Box can be propagated from cuttings put in a cold frame, or, failing this, a sheltered border during the early autumn months. When out of doors it is particularly necessary to make the cuttings very firm in the soil; otherwise drying winds will affect them. As it is obvious that Box edging, from the position it occupies, cannot be fed by means of a top-dressing, the best way is to give it some liquid manure, that made from cow manure, with the addition of a little soot, being best for the purpose. It is better applied after rain than when the ground is very dry.

**FALSE ACACIA AS A FOREST TREE** (John Wallop).—If your ground is not too wet, you cannot do better than plant the Robinia either alone or mixed with Larch. Ground that will grow the latter suits the Robinia admirably. The trees can be planted in lines or as you wish, but in lines is best, as the most use is made of the ground. Plant 3 feet apart in alternate lines, i.e., where the plants in one line are opposite the spaces in the next line. As they grow some can be thinned out for poles, or you could plant 6 feet apart and leave until they require thinning. We have never been able to understand why the Robinia has not been more used as a forest tree in this country, as it grows quickly, the wood is hard and durable, and it suffers from no disease or insect pest.

### FRUIT GARDEN.

**BOTTLING FRUITS FOR PRESERVING** (H. H. T.). The first consideration in relation to the fruit to be bottled, and especially the larger fruits, such as Plums and Gooseberries, is that it is quite clean and even in size. Fruit of uneven size does not fill the bottles properly. The fruit should also be dry; placing it on a clean cloth and gently rubbing it with another soon dries it. The bottles should be quite clean and dry. Fill them carefully with the fruit, and very neatly. If the fruit is to be unsweetened, only water is added; if to be sweetened, a rich sugar syrup is made and poured in on to the fruit. The bottles are then placed in a proper kettle and the liquid in them caused to semi-boil. While the steam is escaping capsules or covers fitting on to a rubber ring are placed over the mouths loosely, and as the steam declines these capsules settle down firmly, and become, as it were, under what is known as the vacuum process, immovable, until the metal cover is pierced to admit air. Recently a glass cover, instead of a metal one, made to screw down tight, and capable of being moved by the hand when needed, has been patented. That is thought to be a great gain, as metal capsules once pierced are useless. The patentees of this form of bottle and capsule are the Flint Glass Bottle Company, Aldersgate Street, London, E.C., to whom we recommend you to apply. But if you care to purchase from the Royal Horticultural Society, Vincent Square, London, S.W., a copy of their Journal (Vol. XXIX., part 4), at a cost of 5s., you would find in it, at page 650, a very exhaustive illustrated paper by Mr. Tom Sedgwick on methods of fruit preservation that will give you all needful information.

## KITCHEN GARDEN.

**POTATO MANURE (Rulland).**—The Potato sent is King Edward VII., a white kidney with carmine blotches over the bud end. It is because of these markings we are able to name it. It is a heavy cropper, but the quality of the tubers when cooked is indifferent. As to the value of donkey manure, the animal being fed exclusively on hay and grass, we should class it with cow manure. It is rather of a cold nature, chiefly nitrogenous, and quite unfit to produce warmth in the way horse manure does when fermenting. We should not use it to dress Strawberry plants until after the fruit had been gathered and the runners cleared off. In the meantime put the manure as it is collected into a heap, and turn it once a fortnight, adding to it, if you have such, free dustings of soot. It will then be in a much better condition to apply either to Strawberries or to any other crop. The turning would get rid of a nasty smell.

## MISCELLANEOUS.

**VAPORITE.**—D. M. R., Bournemouth.—Full particulars of Vaporite may be had from Strawsons, City Bank Buildings, 71A, Queen Victoria Street, E.C. It is a powder, and does not contain arsenic. It costs 10s. per cwt., 6s. 6d. for 56lb.

**CHRYSTANTHEMUMS: STOPPING AND TIMING (K.).**—Unless you want your plants for exhibition purposes, do not stop them. This stopping and timing are only necessary when growers want to make a show within a given period. Your plants will make a far more interesting home display if they are left to develop their buds in a more natural manner. In this way the display will be more prolonged.

**VEGETABLES AT SHREWSBURY SHOW (W. Henderson).**—We wrote to you in answer to your letter, but our letter was returned marked "address unknown." We are glad to hear THE GARDEN is so much appreciated. We are afraid we are unable to give you the information you wish for; we have hunted through our files but we can find no mention of the number of entries in each of the classes you name. Your best plan, and we think the only way to find out, is to write direct to the secretaries of the two societies, enclosing in each letter a stamped addressed envelope. Messrs. Adnitt and Naunton, The Square, Shrewsbury, and Mr. W. E. Barnett, Snow Hill, Wolverhampton, are the respective secretaries.

**BEETLE IN VINERY (A. J.).**—The beetle you find in your vinery is the common cockchafer (*Melolontha vulgaris*), a very strange pest in a vinery. The grubs of this insect no doubt have been feeding on the roots of the vines or some other plants in the house, and they were probably introduced in some soil and became chrysalides, from which the beetles have emerged. Your gardener will no doubt kill all he can find. He should search well for them. The beetles usually feed on the leaves of forest trees, and the grubs on the roots of many kinds of plants. The latter, when full grown, are nearly 2 inches in length, white, fleshy, and much wrinkled. I have never heard of this insect attacking plants grown in a house before. It is important to prevent the cockchafers from laying their eggs in the soil.—G. S. S.

**FIELD MOUSE (W. E.).**—Both the short-tailed field mouse or vole and the long-tailed field mouse do considerable harm. Both are common; the vole may be distinguished by its short tail. The latter makes a run, and the most effective method of catching them is to make pitfalls 1 foot deep, 4 inches to 6 inches wide at the mouth, and wider still at the bottom. Into these the mice will fall and cannot climb out. An inverted flower-pot sunk in the ground is sometimes used instead. Traps of various sorts may be used for the vole and for the long-tailed mouse. Poison may be used with success if it would not be dangerous to children or domestic animals. One of the best poisons is phosphorus mixed with lead and flour. This may be scattered on or beside the seed-beds. A covering of coal ashes 1 inch thick is said to prevent mice becoming injurious to seed-beds. Natural enemies to mice are owls, hawks, and weasels.

**SPRUCE GALL APHIS (C. E. T.).**—Your Spruce Firs are attacked by the Spruce gall aphid (*Chermes abietis*). As to whether the trees were infested by this insect when you planted them two and a-half years ago, it is impossible for me to say. The galls that are now on the trees are dead and empty, but later on new ones will be formed. These you should keep a sharp look out for, and you should cut them off at once and burn them so as to prevent the sap of the trees being wasted in forming the galls and to kill the aphides. If your trees are not too large, it would be useful to syringe or spray them freely with a solution of paraffin emulsion early in June or quite at the end of May, and again in about three weeks or a month's time with the hope of killing the female insects which are laying their eggs, or the young before they become sheltered by the galls. As to the material for your garden paths, I should think that the best thing that you could do would be to make a concrete of it by adding one part of Portland cement to five parts of the material, mixing it thoroughly, and adding enough water to enable it to be spread (not less than 2 inches thick) like mortar. You could soon see by experimenting how moist the mixture should be. I presume the path has a sound foundation.—G. S. S.

**TARRING RASPBERRY STAKES (C. S. S. J.).**—There is no reason to assume that the coal tar coating to the bottoms of your Raspberry stakes would injure the rods in any way. Once absorbed by the wood, and hard, the tar is quite innocuous to vegetation. What you describe as Archangel tar is really Stockholm tar. That is a vegetable product, but still would be in a wet condition harmful to growing things, but hard and dry is quite harmless. If you still have fears, then coat over the stakes with hot lime-wash to the depth they are in the ground.

**NAMES OF PLANTS.**—Mrs. M.—*Narcissus bicolor* Victoria.—*L. Cuenod.*—*Iris ensata* (Japan and Siberia).—*S. T. J.*—*Danae Laurus* (Alexandrian Laurel).—*E. M. M.*—*Prunus nana.*—*Thomas Grant.*—*Erica mediterranea* var. *glauca.*—*B. L. Davis.*—*Sophora tetraptera.*—*Vectis.*—Your *Oreoid* is probably *Ansellia africana* var. *lutea.* You say the flowers are white. The ordinary form has yellow flowers, spotted with red, and the variety *lutea* has paler yellow flowers and is not so much spotted. They are not rare, but if you have a white and yellow variety that would be uncommon. Send us a flower and leaf, and we can help you better.—*John Hunter.*—*Amelanchier canadensis.*—*Croenway.*—1, *Lilium nepalense*; 2, *Primula verticillata*; 3, *Ribes anreum* procox.—*T. Smith.*—1, *Primula pubescens* alba (ovalis); 2, *Draba incana*; 3, *Narcissus Johnstoni* Queen of Spain; 4, *Anemone apennina*; 5, *Sparaxis tricolor* var.—*Constant Reader.*—*Mimulus (Diplazis) glutinosus.*—*C. Prentis.*—*Staphylea colchica.*—*E. J. Whitmore.*—1, *Adiantum cuneatum*; 2, *Eucharis undulata*; 3, *Diosma ericoides*; 4, *Elmoeodendron orientale*; 5, *Asplenium serra*; 6, *Selaginella emilliana*; 7, *Adiantum semulans*; 8, *Alyssum maritimum*.

## LEGAL POINTS.

**VICAR'S LIABILITY (Northerner).**—A newly-appointed vicar is not liable to pay compensation for fruit trees planted in the vicarage garden by his predecessor.

**FIRE INSURANCE (Perplexed).**—Always be careful to give the company notice of any alteration. In the case of a policy covering furniture or other goods, the policy will only be effective so long as the property insured remains upon the premises named in the policy. If the property is to be removed, notice should at once be given to the insurance company, who should indorse the policy with a memorandum as to the removal. If premises are materially altered, the insurance thereon, and on the contents, may be avoided. The company's consent should be obtained before any alterations or structural repairs are made.

**GROUND GAME (Tied Up).**—Notwithstanding you have let the sporting rights, you can still kill the rabbits, either personally or by a member of your family or a person employed by you for the purpose, either of whom must be authorised by you in writing to exercise your powers under the Ground Game Act. You should give the tenants notice that the rabbits must be kept down, and that unless they do this you will have to exercise your rights under the above-mentioned Act.

**CUT TIMBER.—TENANT IN TAIL (Tied Up).**—A tenant in tail may cut timber for whatever purpose planted. The same observation applies to a tenant for life "without impeachment of waste." Except in the case of timber estates, that is, estates which are cultivated merely for the produce of suitable timber, and where the timber is cut periodically, a tenant for life impeachable for waste can only cut timber under the provisions of the Settled Land Act, 1882 which enables a tenant for life impeachable for waste to cut and sell timber ripe and fit for cutting with the consent of the trustees or the Court, and to retain one-fourth of the proceeds as rents and profits, the other three-fourths being set aside as capital. The question of what timber is depends—first, on the general law; and, secondly, on the special custom of the locality. By the general law Oak, Ash, and Elm are timber, provided they are of the age of twenty years and upwards, and are not so old as not to have a reasonable quantity of useful wood in them sufficient to make a good post. Beech, Hornbeam, Whitethorn, Blackthorn, and many other trees are considered timber in some localities. A tenant for life impeachable for waste cannot cut ornamental trees or stools of underwood. He must not cut trees which, being under twenty years of age, are not timber, but which would be

timber if they were over twenty years of age, unless the cutting is necessary for the purpose of allowing the proper development and growth of other timber in the same plantation. The question whether a tenant for life is impeachable for waste or not depends upon the terms of the will or deed under which his interest arises.

## BOOKS.

## Notes from Nature's Garden.\*—

Mrs. Bardswell has written a chatty book of the ways of Nature, of the beauty of sky, hedgerow, and field, and even the garden itself, though this is not a book of garden information. It will while away a pleasant hour and instruct at the same time. The authoress is filled with a love of Nature, and endeavours to bring the sweetness of the country into the drab surroundings of the town. Her efforts in this direction deserve high praise, and we hope the lesson that is taught in the chapter on "Nature in Towns" will not remain unheeded. "A little bit of Nature, how good it is among the bricks and chimney pots. Nothing need rob us of the God-sent heritage. It is ours, unless we shut it out, and the moral of it all is, bring Nature into towns" (page 51). There is a joyous singing of the sweet spring days. "Too often do we miss the joy of spring in England. Lured from it by the earlier flowers and sunshine of southern skies, under their bright, clear canopies we scorch and shiver, baked by the sun or shrivelled by the dry, cold wind. Beauty is there, no doubt, but never the fresh and simple charm, nor the exhilaration of the first months of the year at home. An English winter—if spent in the country—is soon over. No sooner the shortest, darkest day is past than life asserts itself, the world awakens. Morns brighten, days lengthen, sap reddens, dull grey skies turn blue, and dim brown fields are shot with green. Long before town-folk are aware of it the winter days are over, and the time of the singing birds has come." It is a book well worth reading, and the numerous illustrations include many of great charm, the windmill, facing page 6, particularly so.

**In My Garden.**—This is "a little summer book for Nature-lovers," published by The Lavender Press, Sheep Street, Wellingborough. It is intended as a memorandum of all that happens out of doors, and may be used as a record of experiments in gardening or to chronicle the events of the garden year. A few cultural hints are given for each month, together with flowers in season suitable for table decoration. Appropriate extracts from various authors and a space for memoranda complete the scheme of a dainty little publication.

## SOCIETIES.

## HUNTINGDONSHIRE DAFFODIL AND SPRING FLOWER SOCIETY.

THE first show of the above society was held on the 19th ult. and was most successful. The entries were numerous and were splendidly supported by some fine stands of Daffodils, shown by Messrs. Barr and Sons, Messrs. R. H. Bath, Limited, Mr. J. W. Cross, Messrs. J. R. Pearson, W. and J. Brown, Peterborough, J. E. Perkins of Huntingdon, and Miss Willmott of Great Warley. Messrs. Barr and Sons secured awards of merit for Dr. Kennard and the famous White Trumpet Peter Barr. Messrs. J. R. Pearson, Lowtham, Notts, were awarded an award of merit for Duke of Leinster and Florence Pearson and a capital blend of other varieties. Mr. Mailender of Hodssock's Pride fame received an award of merit for a white seedling trumpet, which took first prize in the trumpet section. In the competitive classes Mr. J. Mailender, H. E. Darlington, Esq., H. B. Young, Esq., and the energetic secretary, Miss L. Linton, were conspicuous. Miss Willmott's stand of seedlings was greatly admired, particularly the hybrids from Queen of Spain and Triandrus, Earl Grey being very prominent. The public patronised the show extensively, particularly in the afternoon, when it was crowded. Altogether a most successful show was held, great praise being due to all concerned.

\*"Notes from Nature's Garden," by Frances A. Bardswell. Longmans, Green and Co. Price 6s. 6d. net.



## MIDLAND DAFFODIL SOCIETY.

THE eighth annual exhibition of this society was held in the Edgbaston Botanic Gardens, Birmingham, on the 26th and 28th ult. During the afternoon of the first day the weather was beautifully fine, and there was a large attendance. The show was even larger than that of last year, although it was generally admitted that, on the whole, the Daffodil blooms were not of such good quality as usual. Comparatively few trumpet flowers were exhibited, and the show was remarkable chiefly for the large number of flowers in the Parvi- and Medio-Coronati sections. The group of Daffodils shown by Mrs. Berkeley of Spetchley contained many remarkably fine flowers, and was undoubtedly a feature of the show. A marked improvement was the arrangement of the competitive exhibits on tiered staging, instead of on flat tables as before. In the evening, Messrs. Robert Sydenham and William Pope—to whom great praise is due for their untiring efforts in connexion with this society—entertained a large number of exhibitors, officials, and others to dinner.

## NON-COMPETITIVE EXHIBITS.

Messrs. Bakers, Limited, Wolverhampton, had a delightful miniature rock garden planted with a very showy lot of plants, such as *Anubrietas* and *Primulas* in variety, *Trilliums*, *Locarvilleas*, *Cypripediums*, &c. Gold medal.

Messrs. Barr and Sons, King Street, Covent Garden, London, exhibited a splendid lot of their new seedling Daffodils, as well as a large collection of popular varieties. *Apricot Phoenix* is a very handsome flower. *Rugulosa maxima*, *Major Spurrell*, *Pole Star*, *Broadwing*, and *Dante* were also included. Gold medal.

Mrs. Berkeley, Spetchley, Worcester, exhibited a collection of Narcissus that comprised many beautiful sorts. *Weardale Perfection* was especially fine; *Great Warley* and other trumpets were very good; and *Will Scarlet*, with its large orange-red cup, was most conspicuous. Other lovely Parvi-Coronati forms were *Watchfire*, *Warley Scarlet*, *Seabird*, *Aftermath*, *Valeria*, and *Epic*. Piece of plate.

The Rev. G. H. Engleheart, Dinton, exhibited a collection of late hybrid and seedling Narcissus that contained many very beautiful flowers, chiefly of the Parvi-Coronati type. *Pole Star* has a spreading white perianth and large, flat, pale golden disc. No. 300 is a large, bold, white flower of the Leedal type, with lemon-yellow frilled cup. *Ermine* has a broad, flat perianth and lemon-yellow cup. These, and others without names, were exquisitely beautiful. Silver-gilt medal.

Messrs. Outbush and Sons, Highgate, exhibited a group of shrubs, *Rambler* roses, and hardy plants. *Asaleas*, *Magnolias*, the new *Rambler* *Mrs. Flight*, *Trilliums*, and *Gentians* were well represented. Large silver medal.

Messrs. Hewitt and Co., Solihull, Birmingham, exhibited a showy group of well-flowered forced shrubs, such as *Lilacs*, *Asaleas*, *Genistas*, &c. *Essex Lilacs*, and *Carnations* being tastefully interposed.

Messrs. Gilbert and Son, Byke, Burne, Lincoln, showed a brilliant lot of *Anemones* and *Tulips*, among the former being the handsome scarlet King of *Anemones*. Silver medal.

Mr. S. Mortimer, Rowledge, Farnham, Surrey, exhibited a beautiful lot of winter-flowering *Carnations*. Silver medal.

Mr. Robert Sydenham, Tenby Street, Birmingham, showed a charming lot of *Tulips* and *Narcissus* grown in bowls in mass fibre. Mr. Sydenham also exhibited a beautiful collection of *Sweet Peas* in many of the best varieties. Silver-gilt medal.

Messrs. J. W. Cross, Old Grammar School, Wisbech, exhibited a handsome group of *Tulips* in many sorts. Silver medal.

Messrs. Hogg and Robertson, Limited, 22, Mary Street, Dublin, showed some beautiful *Narcissus*, many of the newer sorts being represented. Mrs. E. R. Hamilton, with white perianth and yellow orange-tipped cup, was one of the best. They also showed a grand lot of *Tulips*. Silver-gilt medal.

Messrs. W. H. Simpson and Sons, Birmingham, exhibited a large and showy group of *Narcissus*, in which the white trumpets were very good. Silver-gilt medal.

Messrs. Gunn and Sons, Olton, Birmingham, set up an effective group in the form of a bank of cork, tastefully planted with shrubs and flowering plants. Silver-gilt medal.

Mr. Vincent Slade, Taunton, exhibited a collection of his brilliantly coloured zonal *Pelargoniums*. Large silver medal.

Messrs. James Randall and Sons, Shirley, Birmingham, showed some excellent blooms of *Tree Carnations*. Bronze medal.

Messrs. J. R. Pearson and Sons, Chilwell Nurseries, Loddham, Notts, exhibited an excellent lot of *Narcissus*, the Parvi-Coronati forms being finely represented. Among the newer ones were *Red Ensign* (with flat, orange-red cup), *Gipsy Queen*, *Horace*, *Albatross*, and *Homer*. Large silver medal.

Mr. W. T. Ware, Inglescombe, Bath, showed a very fine new *Poeticus* called *Miss Willmott*, a large flower with broad white perianth segments and large yellow crown with red margin.

Mr. F. E. Chapman, Guilford Lodge, Rye, showed some good *Poeticus* forms not for competition.

The Misses Hopkins, Mere, Knutsford, Cheshire, showed the beautiful pink *Daisy Tulips*, as well as *Primroses*, *Polyanthuses*, and other spring flowers.

Messrs. Bick Brothers, Glton, exhibited a collection of rock and alpine plants.

Some handsome varieties of *Hippastrum* were exhibited from the Labeillies Nurseries, Holland.

## COMPETITIVE CLASSES.

Fifty varieties of Daffodils fairly representing the three groups. Mr. E. M. Crofield, Little Acton, Wrexham, won

the first prize with, needless to say, a very beautiful lot of flowers. White trumpets were represented by Mr. Ernest Crofield, Porcelain, Indamora, and Lola. Lady Margaret Boscawen was finely shown, and others especially good were *Scotus*, with pale yellow perianth and orange-red cup; *Gold Eye*, with white perianth and flat, yellow, orange-tipped cup; and *Homer*, with crimson border to the crown. Messrs. Pope and Son, King's Norton, were second, the Medio and Parvi-Coronati forms being very good. *Will Scarlet*, with its richly-coloured cup, and *Bart Sands*, with large lemon-yellow cup, were two of the best. Mr. A. S. Leslie-Melville, Bransford Hall, Lincoln, was third; and Mr. W. A. Watts, St. Asaph, was fourth.

There was only one exhibitor in the class for twenty-five varieties of Daffodils (amateurs only), viz., Mr. R. C. Cartwright, to whom the first prize was awarded. For twelve distinct varieties of true trumpet Daffodils Mr. R. C. Cartwright, King's Norton, was again first; he showed fine flowers of *Victoria*, *Mrs. Ward*, *Empress*, *Mme. de Graaf*, and others; second, Messrs. Impey and Sons, Northfield; third, Messrs. Pope and Son.

Six distinct varieties of trumpet Daffodils: First, Mr. W. A. Watts, St. Asaph, with excellent flowers of *Mme. de Graaf*, *Mrs. Walter Ware*, &c.; second, Mr. S. S. Jones, Press; third, Mr. C. L. Branson, Colehill Park Gardens.

Twelve distinct varieties of Medio-Coronati Daffodils: First, Mr. A. M. Wilson, East Keal, Spilby, with a lovely lot including *Bransford*, *Gloria Mundi*, *Minnie Hulme*, and *Orangean*; second, Mr. A. S. Leslie-Melville; third, Messrs. Pope and Son.

Six distinct varieties of Medio-Coronati: First, Mr. C. L. Branson; second, Mr. S. S. Jones; third, Mrs. Gumbleton, Teyning Manor, Tewkesbury. We could find no exhibits in the class for six distinct varieties of Parvi-Coronati Daffodils.

Six distinct true *Poeticus*: First, Mr. A. M. Wilson, East Keal, with *Horace*, *Almira*, *Virgil*, *Homer*, *Juliet*, and *Chaucer*; second, Mr. F. Herbert Chapman, Guilford Lodge, Rye; third, Messrs. Pope and Son.

Twelve distinct varieties with orange crowns or cups: First, Mr. A. S. Leslie-Melville, who showed *Lulworth*, *Mars*, *Bransford*, *Lobster*, and others; second, Messrs. Pope and Son; third, Mr. Cartwright. Mr. Watts was first for six similar varieties, and Mr. S. S. Jones second.

Mr. Watts won the first prize for four distinct varieties of double Daffodils, Mr. Cartwright being second.

For twelve distinct varieties, none to cost more than 10s. per dozen, Mr. John Soane, 30, Nursery Road, Harborne, was first with *Victoria*, *Empress*, *Mrs. Langtry*, *Grander*, and others. In a similar class for six varieties a third prize was awarded to Mr. Usher, Harborne House Gardens.

For six distinct Daffodils (prizes by Pope and Son) not to cost more than 8s. per dozen, Mr. J. A. Kenrick, Edgbaston, was first with *Barri* conspicuous, *Mrs. Langtry*, *Frank Miles*, and others; second, Mr. John Soane; third, Mr. R. Usher.

For six distinct Daffodils (open only to those who have never won a first or second prize at previous exhibitions), Mr. C. W. Smallwood, Solihull, was first; second, Mrs. Wyndham Brodie.

## SINGLE BLOOMS.

Magni-Coronati: First, Mr. W. A. Watts, St. Asaph, with *Evadne*, white perianth and sulphur trumpet. Medio-Coronati: First, Mr. A. M. Wilson, East Keal, with *Homeopis*, yellow perianth, deep yellow cup. Parvi-Coronati: First, Mr. Wilson with *Concord*, broad, pale yellow perianth, large, flat yellow crown with vermilion border. True *Poeticus*: First, Messrs. Pope and Son with *Nice*, pure white perianth and crimson-edged crown.

## SEEDLINGS AND NEW VARIETIES.

Group of twelve varieties of Daffodil seedlings or flowers not in commerce four years: First, Mr. E. M. Crofield, Little Acton, Wrexham, with some beautiful flowers. Among them were *Countess of Stamford* (white trumpet); *Erda*, with medium-sized flat, red-edged cup; *Ethelbert*, with flat yellow cup, tipped with orange; and *Adonia*, a handsome self yellow, with short, straight trumpet. Second, Messrs. Pope and Son; third, Miss Katherine Spurrell, Benningham, Norwich.

Three distinct varieties of Magni-Coronati forms, raised by exhibitor and not in commerce: First, Mr. E. M. Crofield, who showed *Iceberg* (white trumpet), *Hebe*, and *Semi-rain*, with white perianth and sulphur trumpets; second, Messrs. Pope and Son; third, Miss Spurrell.

Three distinct varieties of Medio-Coronati seedlings (raised by exhibitor and not in commerce): First, Mr. P. D. Williams, Llanarth, St. Keverne, Cornwall, who showed *Imari*, with spreading white perianth, the large open cup being greenish yellow tipped with red; *Milkmaid*, pure white, with long cup, and another with pure white perianth and long striking orange-red cup; second, Mr. W. F. M. Coupland, Stone; third, Messrs. Pope and Son.

Three distinct varieties of Parvi-Coronati seedlings (raised by exhibitor and not in commerce): First, Mr. C. H. Cave, Rodway Hill House, Mangotsfield, near Bristol. The three varieties were: *Pilgrim*, broad pure white perianth and flat crimson-edged crown; *Mercury*, large flower with broad perianth and rich yellow crown; and *Ruby*, pure white, with flat red crown; second, Mr. P. D. Williams, whose exhibit contained *Red Ring*, a beautiful flower with yellow cup having a well defined red border; third, Messrs. Pope and Son.

## PLANTS IN POTS.

Twelve pots of Daffodils: First, Mr. R. C. Cartwright, King's Norton. Mr. R. Usher, Harborne House Gardens, was first for six pots of Daffodils. Mr. Cartwright again winning for twelve pots of single *Tulips*. Mr. Usher was first for six pots of single *Tulips*. For six pots of

*Polyanthus Narcissus* Mr. Cartwright was the first prize winner.

Three vases or bowls of *Polyanthus Narcissus* grown in mass fibre (prizes by Mr. Robert Sydenham): First, Mr. Cartwright. Mr. Sydenham also offered prizes for three bowls of any other Daffodils, Mr. W. H. Parton, Holly-wood, winning the first prize.

## MISCELLANEOUS.

The first prize for a group of out Daffodils, arranged on a round table, was won by Messrs. Impey and Sons, Northfield; second, Messrs. Pope; third, Mrs. Muston, Edgbaston.

For a bouquet of Daffodils Messrs. Pope and Son were first, and Mr. S. S. Jones, Press, won for three sprays of Daffodils; Messrs. Pope and Son were first for a bowl of Daffodils.

For an epigone of Daffodils Messrs. Impey and Sons and the Rev. J. Jacob were equal first; the latter used odorous ruses as very effectively. Messrs. Impey and Sons won for a box of out Daffodils; careful picking and freshness of bloom the chief points.

Mr. A. Kenrick was first for six distinct varieties of *Tulips*, and Mr. Cartwright for six vases of Spanish *Iris*.

## SPECIAL AWARDS.

*Barr and Sons' Daffodil Vase*—This is awarded to the most successful amateur exhibitor, so many points being given to the various prize winners in the different Daffodil classes; Mr. R. C. Cartwright, King's Norton, was the winner.

*Premier blooms*.—Prizes are awarded to the grower of the finest bloom in each section. The awards were as follows: *White trumpet*, Mrs. E. Crofield, shown by Mr. E. M. Crofield, Wrexham; *yellow trumpet*, King Alfred, shown by Messrs. Barr and Sons, Covent Garden; *bicolor trumpet*, *Weardale Perfection*, shown by Mrs. Berkeley, 8 e chief; *Medio-Coronati*, white or yellow crown, *Minnie Hulme*, from Mr. A. M. Wilson, and *White Queen*, from Mr. A. S. Leslie-Melville (equal); *Medio-Coronati*, other coloured crown, *Imari*, shown by Mr. P. D. Williams, St. Keverne; *red crown Parvi-Coronati*, *Red Ensign*, from Messrs. J. R. Pearson and Sons, Loddham, Notts; *yellow crown Parvi-Coronati*, *Lunette*, from the Rev. G. H. Engleheart, Dinton; *true Poeticus*, *Virgil*, from Mr. A. M. Wilson.

Each of the following received an award of merit: *Erda*, *Red Ensign* (both Parvi-Coronati forms, with rich crowns); *Fiona* (yellow Ajax, with long frilled trumpet); *Mrs. Ernest Crofield* (white trumpet). All the above were shown by Mr. E. M. Crofield. *Mustardies* (Parvi-Coronati with orange crown), from Messrs. Barr and Sons; *Eraser* (Medio-Coronati, white perianth and yellow cup), from Mr. A. M. Wilson.

## NATIONAL AURICULA SOCIETY.

THE seventh annual exhibition of the Midland section of this society was held in connexion with the Midland Daffodil Society's show reported above.

For six show Auriculas, dissimilar, Mr. J. Douglas, Great Bockham, was first with *Favourite*, *Acme*, *Abbé List*, and others. Mr. Douglas was also first for four show Auriculas, dissimilar, with *Abraham Barts*, *Veats*, *Mrs. Phillips*, and *Mrs. Henwood*. Mr. J. W. Bentley, Castleton, was first for two show Auriculas with *Shirley Hibberd* and *Favourite*.

For a green-edged variety, Mr. Shipman was first with *Shirley Hibberd*. For a grey-edged flower, Mr. Cranfield won with *G. Lightbody*. The best white-edged bloom was *Acme*, also from Mr. Cranfield. Mr. A. Lawton showed the best self in *Gerald*.

Pairs for maiden growers: First, Mr. H. Wadley, Aston, with *Heroine* and *Abbé List*.

Three show Auriculas (local): First, Mr. E. Dankes, Aston, with *Rachel*, *A. Barker*, and *Mrs. Potts*.

For a seedling Auricula Mr. J. Douglas was first with *Prince Charming*.

## ALPINE AURICULAS.

Six, dissimilar: First, Mr. J. Douglas with *J. F. Kew*, *Teviotdale*, *Duke of York*, *Urania*, and others.

Four, dissimilar: First, Mr. C. Winn, Selly Hill, with *Thetis*, *Dean*, *Mrs. Dankes*, and *Duke of York*. Mr. E. Dankes won for two dissimilar alpine with *Regina* and *J. F. Kew* (premier alpine).

Single plant, gold centre: First, Mr. E. Dankes, Aston, with *Shirley*. Single plant, light centre: First, Mr. J. M. Eglinton, Birchfield, with *Argus*.

Two alpine, for maiden growers: First, Mr. A. Wadley, Aston, with *Mrs. Gorton* and *J. F. Kew*.

Three alpine, for local growers: First, Mr. R. Holding, Bourneville, with *Unexpected*, *Miss Aston*, and *J. F. Kew*. Seedling, gold centre: First, Mr. J. W. Bentley, Castleton, with *Byland Adkins*. Seedling, light centre: First, Mr. Dankes, with *Sappho*.

Four seedling alpine: First, Mr. R. Holding, who showed *Belle of the Manor* and others.

For a single plant of gold-laced *Polyanthus*, Mr. Bentley was first with *George IV*.

## BRISTOL GARDENERS' ASSOCIATION.

## MEETING AT ALTRINGHAM.

A MEETING of the Altringham branch (Cheshire) was held on the 12th ult. Mr. Calderbank, head-gardener to Mr. Crofield, M.P. for the district, presided, and an address was delivered by Mr. R. Hooper Pearson, who represented the London Executive Council. Particular emphasis was laid upon the "Recommendations" issued with the rules, and the speaker asked members to study the spirit expressed in them, and be guided by that spirit in dealing with the matters therein discussed. Several other speeches were made, and questions were asked and answered, the meeting showing every confidence in the Executive Council.

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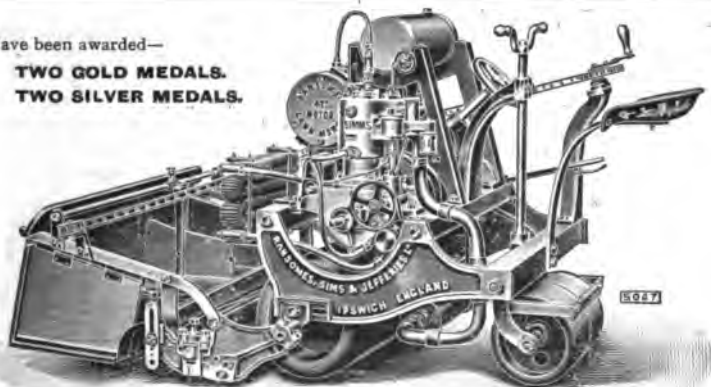
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## ROYAL HORTICULTURAL SOCIETY.

THERE was an excellent display of hardy and exotic flowers in the hall on Tuesday last, the 1st inst.

## ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, Harry J. Veitch, H. Little, W. Boxall, Francis Wellesley, R. G. Thwaites, Walter Cobb, H. G. Morris, F. Sander, F. Monteith Ordvie, G. F. Moore, J. Wilson Potter, W. P. Bound, T. W. Bond, Arthur Dye, H. T. Pitt, J. Charlesworth, H. Ballantine, W. H. White, W. H. Young, H. A. Tracy, F. J. Thorne, Norman T. Cookson, W. A. Blinney, and de B. Crawshaw.

A handsome group of *Vanda* trees was shown by Leopold de Rothschild, Esq., Gunnersbury Park, Acton (gardener, Mr. Reynolds). The plants, arranged on the floor, were attractively disposed among a base of greenery, and formed a most pleasing display. The plants bore a large number of their handsome flowers. Silver-gilt Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, exhibited a large group of *Orchids*, in which *Laelio-Cattleya* hyeana, L. C. callistoglossa, *Brasso-Cattleya* digbyana-Schröderi, E. C. Queen Alexandra, *Cattleya* Empress Frederic, L. C. Merida, and others were very fine. *Oncidium marshallianum* made a brilliant display, and *Ondotoglossum*, *Lycastes*, and others contributed to a handsome group. Silver-gilt Flora medal.

Messrs. Hugh Low and Co., Enfield, showed some beautiful forms of *Cattleyas* in their group, e.g., *C. Schröderi* in some good varieties, notably *Perfecta*, *C. intermedia* alba, and *C. citrina*. *Trichopilia suavis*, *Dendrobium*, *Madevalla Pourbaixii*, and other showy *Orchids* were included. Silver Flora medal.

Sir Frederick Wigan, Bart., Clare Lawn, East Sheen (Orchid grower, Mr. W. H. Young), exhibited some beautiful forms of *Ondotoglossum crispum*, as well as *O. Pescatorei*, *O. anderssonianum*, and *O. wilsonianum*. *Phalenopsis grandiflora rimestadtiana*, *P. g. aurea*, *Miltonia vexillaria*, and *Laelia purpurata bachhouana* were included in the group. *Cymbidium devonianum* was represented by a fine plant, and there were well-flowered plants of *Cypripedium lawrenceanum*, *C. bellatulum* and *C. niveum* bore good flowers. Silver Flora medal.

In the group shown by Messrs. Sander and Sons, St. Albans, *Cattleya Mendellii*, *C. nobilior*, *C. intermedia* alba, *C. Schröderi* gigantea, and other *Cattleyas* were very good, and *Oncidium marshallianum splendens* was finely in flower. *Ondotoglossum Adrianae*, *O. crispum* *Diadem*, *Maxillaria Harrisonii*, *Recanthera imeshootiana*, and other *Orchids* completed an interesting group. Silver Flora medal.

Mr. Cypher, Cheltenham, arranged a very showy group of *Orchids*, consisting largely of well-grown *Miltonia vexillaria*, *Ondotoglossum*, *Laelia purpurata*, and *Cattleyas*. Among the *Cattleyas* were *G. Skinneri*, *C. lawrenceana*, *C. Mendellii*, and *C. M. superblima*. *Laelio-Cattleya hyeana*, *Bletia Shepherdii*, and *Epidendrum* were also shown. Silver Flora medal.

Sir Trevor Lawrence, Bart., Bedford, Dorking (Orchid grower, Mr. W. H. White), exhibited a small group, in which *Madevalla Basktonii* and *Laelio-Cattleya G. S. Ball magnifica* made a bright bit of colour. *Madevalla ignea* Schröder var., *Brasso-Cattleya digbyana-Schröderi*, *E. C. nivalis*, and *Chrysia Sedent* were others shown. Silver Bankian medal.

Messrs. Stanley and Co., Southgate, N., showed a small group of *Cattleya Mossie* and *Ondotoglossum* in variety. The Hon. Walter Rothschild, Tring Park, Tring (gardener, Mr. Dye), showed a collection of *Madevallas*, more interesting from a botanical than from a garden point of view. Silver Bankian medal.

A cultural commendation was awarded to Baron Schröder, The Dell, Egham (gardener, Mr. Ballantine), for a plant of *Ondotoglossum triumphans* The Dell variety, bearing three fine racemes of flowers.

A cultural commendation and silver Bankian medal were awarded to F. Wellesley, Esq., Woking (gardener, Mr. Hopkins), for a charming little group of *Cypripedium bellatulum* and *niveum*.

A silver Bankian medal was awarded to de B. Crawshaw, Esq., Sevenoaks (gardener, Mr. Stables), for a group of very handsome forms of *Ondotoglossum crispum*.

The diplomas were granted as follows: For unspotted *Ondotoglossum crispum* the first diploma was awarded to O. c. *Venus*, and the second diploma to O. c. *White Empress* (both from de B. Crawshaw, Esq.).

For spotted forms O. c. *Eustace* (from Norman C. Cookson, Esq.) won the first diploma, and O. c. *Raymond Crawshaw* (from de B. Crawshaw, Esq.) the second.

For hybrids *Ondotoglossum luteo-purpureum* Mossii (from de Barri Crawshaw, Esq.) won the first diploma, and O. l. p. *acpectrum* Dell variety (from Baron Schröder) the second.

The first diploma for *Cypripedium bellatulum* was given to C. b. *Exhimi* var. (from J. Forster Alcock, Esq.), and the second to C. b. *wellesleyanum* (from F. Wellesley, Esq.).

*Cypripedium niveum* The Premier (shown by F. Wellesley, Esq.) won the first diploma, and *C. niveum* Purky (from Jeremiah Colman, Esq.) was awarded the second.

A second diploma was awarded to *Cypripedium concolor* Sanders (shown by F. Wellesley, Esq.); the first diploma was not awarded.

## NARCISSUS AND TULIP COMMITTEE.

Present: Mr. H. B. May (chairman), Miss Willmott, Messrs. A. Kingsmill, J. T. Bennett-Poë, W. F. M. Copeland, P. Rudolph Barr, Walter T. Ware, R. W. Wallace, W. Goldring, J. D. Pearson, E. A. Bowles, A. M. Wilson, Robert Sydenham, James Walker, W. Poupert, Charles T. Digby, G. Reuthe, G. W. Leak, John Hoog, W. W. Fowler,

the Revs. G. H. Engleheart and Joseph Jacob, and C. H. Curtis (hon. secretary).

The group of *Daffodils* shown by Miss Willmott, F.L.S., V.M.H., was very beautiful indeed, and probably the finest display of these flowers ever seen in the Hall. They were arranged on a steep slope, so that each flower could be perfectly well seen. There was a good deal of variety of colouring, the yellow and bicolor trumpets and the rich cupped and crowned varieties representing quite a wide colour range. The white trumpets were as beautiful as any, while most conspicuous of all was Will Scarlet, with its large cup of glowing orange-red. It would be useless to attempt to mention varieties, for all were good, and the best forms extant were comprised in this exhibit. Gold medal.

Messrs. R. H. Bath, Limited, Wisbech, exhibited a representative collection of *Daffodils* and *Tulips*. The former consisted chiefly of the Parvi-Coronati forms, some of which, as *Cassandra*, *King Edward VII.*, *Glory*, and others were beautiful. Among the *Tulips* were many brilliantly-coloured sorts. Messrs. Bath also exhibited the double *Lobelia Kathleen Mairdall*. Silver Bankian medal.

Messrs. Barr and Sons, King Street, Covent Garden, W.C., showed a beautiful lot of *Daffodils*, as well as *Tulips*, *Fritillarias*, and alpinas. Among the *Daffodils* *regulus maximus*, *Leedai White Lady*, *Pole Star* (with flat lemon-yellow cup), and various seedlings were very beautiful. *Posticus ornatus*, *Incomparabilis plenius*, *Mrs. Langtry*, and others were staged in quantity. *Tulipa Griegi* was the most brilliant of the *Tulips*, which were shown in great variety.

Mr. A. M. Wilson, East Keel, Spilby, Lincs, showed some choice *Daffodils* and *Tulips*. *Cassandra*, *Beacon*, *Horace*, *Lulworth*, *Homer*, *Spenser*, *Chaucer*, *Will Scarlet*, and others were well represented. The *Tulips*, too, such as *Chrysolara*, *Griegi*, *Thomas Moore*, and *Prince of Austria* were very showy. Silver-gilt Bankian medal.

A bronze Bankian medal was awarded to the Hon. Mrs. Chichester, Wexford, for an exhibit of *Narcissi*.

Messrs. William Bull and Sons, King's Road, Chelsea, showed a collection of *Tulips* in many handsome sorts.

## NEW DAFFODILS AND TULIPS.

*Narcissus Princess Ema*.—A trumpet flower of good form with creamy white perianth and clear canary yellow trumpet. Shown by Messrs. R. H. Bath, Limited, Wisbech. Award of merit.

*Narcissus Masterpieces*.—A very beautiful flower with pure white perianth of rounded segments, and a fairly large, orange-red crown. Shown by Messrs. Barr and Sons, King Street, Covent Garden. Award of merit.

*Narcissus Easter*.—A beautiful Medio-Coronati form with flat sulphur-yellow cup and white perianth. Shown by Mr. A. Wilson, East Keel, Spilby, Lincs. Award of merit.

*Tulipa fosteriana*.—A handsome scarlet *Tulip* of elegant form. The base is black, surrounded by a yellow ring. Shown by Mr. J. T. Bennett-Poë. First-class certificate.

*Tulipa Griegi alba*.—A cream-coloured form of the well-known T. Griegi, with a broad crimson band on each petal. Shown by Mr. C. Van Tubergen, jun., Haarlem. Botanical certificate.

## FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. J. W. Barr, J. Green, T. W. Turner, C. J. Salter, Charles Jeffries, Charles Dixon, James Douglas, Charles E. Pearson, Charles E. Shea, W. P. Thomson, E. H. Jenkins, William Cuthbertson, W. J. James, George Paul, William Howe, C. E. Fielder, Charles Blick, G. Gordon, E. Hooper Pearson, J. Jennings, James Hudson, Charles Drury, H. J. Cuthbert, George Nicholson, and E. C. Reginald Nevill.

A most interesting group was that of *Auriculas* from Mr. James Douglas, Great Bookham, Surrey. Some 800 plants of these beautiful spring flowers were shown, and we think we are not exaggerating if we say they were the finest lot ever staged. The alpinas were in strong force, and were amply supported by the beautiful show kinds. In a group of this character it is not possible to give a lot of names. Gold medal.

Messrs. Veitch and Sons, Limited, Chelsea, contributed good flowering groups of the blue *Hydrangeas*, of which there were two forms, *H. hortensis* and *H. japonica rosea*, the blue colour in the latter being deeper. *Epiphyllum Gartneri*, *Tillandsia Lindenii*, and *Medinilla magnifica* were also shown in flower. Silver Bankian medal.

Some good alpinas and perennials came from Messrs. George Jackman and Son, Woking, the more noticeable plants including *Thalictrum anemonoides*, white *Onosma alba-roseum*, very fine *Ranunculus amplexicaulis*, and *Auriculas*.

The Sweet Peas from Mr. Henry Eckford, Wem, Salop, were very beautiful and fresh looking. Not many varieties were shown, yet their presence was appreciated by all. Bolton's Pink was especially good.

Hardy Ascleas from Messrs. R. and G. Cuthbert, Southgate, were very fine, the bushes, with masses of gorgeously-coloured flowers, making a rich display. They also showed a good collection of Ivy-leaved *Paraglossum*, and a fine plant of *Rhododendron Pink Pearl*. Silver Flora medal.

Mr. L. B. Russell, Richmond, showed a good collection of *Clematis*, the small plants in pots being well flowered. Some *Ceanothus*, *Philadelphus Boule d'Argent*, and *Dracenas* were also noted.

Mr. Robert Sydenham, Tenby Street, Birmingham, showed Sweet Peas in very good form and in many choice varieties. *Tulips* and *Lily of the Valley* in bowls of fibre were also shown.

Mr. H. Elliott, Hasocks, Sussex, showed Tree Carnations in excellent style. *Florence Wooler*, pink; *England*, light scarlet; *Elliott's Queen*, soft cerise-pink; and *H. Elliott* were among the best in a good lot.

*Anemones* were well shown by Mr. N. Lewis, Loversdown, Bridgewater, the colours presenting remarkable variety.

Mr. H. B. May, Edmonton, contributed a large collection of double zonal *Paraglossum*. *Pansies*, *Statice*, and other plants were shown. Silver Bankian medal.

*Rhododendrons* cut from the open came from W. M. Cassell, Esq., Fairlawn, Tonbridge (gardener, Mr. Cudberry). There were many excellent varieties.

Messrs. Paul and Son, Old Nurseries, Chessington, showed *Spiraea arguta multiflora*, *Barbarea stenophylla*, *Rhododendron Lady Alice Fitzwygram* (a fine white), and other plants in variety.

E. A. Hambro, Esq., Hayes, Kent (gardener, Mr. Grandfield), showed a fine lot of alpine and show *Auriculas*, *Polyanthuses*, and hardy plants generally. Some of the *Androsaces* were very good, and the vernal *Gentian* was exquisite. Silver-gilt Bankian medal.

Sir Samuel Scott, Westbury Manor Gardens, Brackley, Northants (gardener, Mr. Tapper), sent a fine lot of *Carnations* *Lady Hermonie*, *Cecilia*, and the fine *Malmesdon Princess of Wales*. Silver Flora medal.

Some interesting hardy plants came from Mr. G. Reuthe, Keeton, Kent—*Sanguinaria canadensis*, *Lewisia Tweedii* (very fine), several species of *Orchis*, *Trilliums*, *Rhododendrons*, &c. Silver Bankian medal.

The Messrs. Hopkins, Mere, Cheshire, showed alpine *Auriculas*, *Daisy Alice*, *Polyanthuses*, and the scarce *Pompadour Primrose*.

Messrs. J. Peed and Son, West Norwood, showed alpinas in pans, *Pansies*, and cut flowers of *Gloxinias*.

Messrs. J. Cheal and Sons, Crawley, contributed alpinas in boxes, *Saxifragas*, *Gentiana verna*, *Aubrietias*, and other plants with choice shrubs and the like.

*Primula Stebbidii* in many good varieties came from Messrs. T. B. Ware, Limited, Feltham, and were staged in excellent condition. *Iris* of the Cushion section and a collection of *Aubrietias* were also noted.

The Hardy Plant Nursery, Guildford (Mr. A. E. Upton, proprietor), staged a very good lot of plants. *Alyssum montanum*, yellow, was very good. *Phlox canadensis*, *Saxifraga* Guildford Seedling, *Adonis vernalis*, and *Aubrietias* were all good.

Messrs. William Cuthbert and Son, Highgate, showed the new dwarf *Polyantha Rose* Mrs. William H. Cuthbert, and the new Rambler Mrs. F. W. Flight.

Zonal and decorative *Paraglossums* were a feature as shown by Messrs. Cannell and Sons, Swanley. The same firm also contributed largely of a very showy *Cactus*, *Phyllocactus phyllanthoides* German Empress, a delightful plant full of rose-pink flowers, and not unlike the autumn-flowering *Epiphyllum* in some respects. Silver-gilt Bankian medal.

An excellent group of *Gloxinas rothschildiana* came from the Hon. Walter Rothschild, Tring Park (Mr. A. Dye, gardener), the plants well flowered and highly attractive. Silver Flora medal.

Some well-flowered Tea Roses came from Messrs. Cannell and Sons, Swanley.

Mr. A. L. Griffin, New Eltham, Kent, showed a fine bank of *Cinerarias*, chiefly of the *C. stellata* type. Silver Bankian medal.

Messrs. William Paul and Sons, Waltham Cross, had some fine pillar Roses, such as *Trier*, white; *Wedding Bells*, pink; *Oreopoule*, and the new Hybrid Tea *Warrior*. Several forms of *Pyrus* were splendidly flowered. Silver Bankian medal.

Messrs. T. Cripps and Son, Tunbridge Wells, contributed a very beautiful lot of *Acers* and *Clematis*.

*Phlox pilosa*, P. Lapham, P. Nelsoni, with white *Campanula* and *Euphorbia Wulfenii* constituted a good group from Mr. Amos Perry, Winchmore Hill.

*Verbenas*, *Heliotropes*, *Paraglossums*, and the like were shown by Messrs. Brown of Stamford and Peterborough.

The Carnations from Mr. A. F. Dutton, Iver, Bucks, were excellent. The Cardinal, Mrs. Lawson, Nelson Fisher, White Lawson, Flamingo (very fine), and *Flacets* were all in superb form. Silver-gilt Bankian medal.

Messrs. Dobbie and Co., Rothesay, staged a charming lot of *Violas* and *Pansies*, each in great variety and most tastefully arranged. Silver Bankian medal.

Messrs. Hugh Low and Co., Enfield, showed excellent Roses and Tree Carnations. Some large, well-flowered plants of *Metrosideros floribunda* and *Schizanthus* were very attractive. Silver Flora medal.

Messrs. Sander, St. Albans, had some well-flowered examples of *Clerodendron myrtocophum*, which were most attractive.

A small collection of alpine plants was shown by Messrs. G. and A. Clark, Limited, Dover.

*Myosotis distiflora* Dyers was shown by the Duke of Rutland, K.G., Belvoir Castle, Grantham (Mr. Dyers, gardener); and from Lieutenant-Colonel Spragge, Northcourt Lodge, Suffolk, came *Streptosolen Jamesoni* well flowered.

## NEW PLANTS.

*Carnation H. Elliott*.—This is a good and showy variety the English counterpart of the American Tree Carnation. The large flowers on strong stems were a soft shade of cerise-pink. From Mr. H. Elliott, Hasocks, Sussex. Award of merit.

*Paraglossum Clorinda*.—This is a very showy plant resulting from the crossing of a Cape *Paraglossum* and *P. quercifolium*. The foliage is strongly perfumed, the flowers in compact trusses are a rosy pink shade. From Messrs. Cannell and Sons, Swanley. Award of merit.

The only exhibit before the fruit committee was a box of Strawberries from Mr. Bullivant. We shall refer to this and the new *Orchids* next week.

\* The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 6d.

# THE GARDEN.

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## LILACS.

**G**ARDEN varieties of Lilac, which now constitute one of the most beautiful groups of hardy shrubs, are derived from two species of *Syringa* only.

These are the common Lilac (*S. vulgaris*) and the Persian Lilac (*S. persica*). It is to the former of these that the finest of the garden varieties owe their origin, although some of the hybrids between it and the Persian Lilac are very delightful, notably, the old Rouen Lilac.

Lilac-time, of which the poets sing, is a time of fragrance and colour in the garden, for it comes in later May; but there is nothing sweeter in its perfume or more alluring in its beauty even then than a flower-laden Lilac. Although the common Lilac is not a native of Britain, it has for over 300 years been an inmate of our gardens, and is as closely associated with rural scenery as almost any native plant. It is even doubtful if it be a native of Europe, for, although it has been found apparently wild in the region of the Danube, it was not till 1828 that it was admitted into the European flora. This seems a very late date for so noticeable a plant to have been discovered. Some authorities believe that it is, like the Persian Lilac, of Asiatic—probably Chinese—origin. However this may be, the common Lilac reached Western Europe about the middle of the sixteenth century, and the Persian Lilac about the beginning of the seventeenth.

The first variety or hybrid of which we have any record is the Rouen Lilac; this is said to have been raised in the Botanic Garden at Rouen near the end of the eighteenth century. It is known by a variety of botanical names, such as *S. chinensis*, *S. rothomagensis*, and *S. dubia*. With regard to the name *chinensis*, it is an interesting fact that this Rouen Lilac was growing in the gardens of Pekin more than 100 years ago. It is, therefore, assumed to have originated in France and in China independently. It is a charming shrub for the garden, not so strong-growing as the common Lilac nor having so fine a truss of flowers. But no Lilac exceeds it in the profusion of its blossoms, which are similar in colour to the ordinary Lilac. Its leaves are smaller and narrower, and it is thus easily recognised when in leaf alone.

The raising of new forms of the common Lilac has been chiefly carried on in France, whence most of the finest varieties in cultivation have come. Although some varieties which showed considerable improvement on the type were raised well back in the nineteenth century, such as Dr. Lindley, Charles X., &c., these have been excelled by the varieties sent out during the last twenty years. The last great advance in Lilac culture we owe to M. Lemoine, who raised and distributed the now popular double-flowered varieties about twenty years ago.

The best plan for anyone desiring to grow a representative set of garden Lilacs is to visit some good collection of them towards the end of May, and note for the next planting season the sorts that please them most; but, failing that, the following selection of about two dozen varieties may be helpful:

**DOUBLE.**—Abel Carrière, flowers large, blue-lilac; Charles Joly, very dark; Président Viger, very large, often double trusses, with fine mauve-lilac flowers; Virginité, rose; Viviani Morel, flowers of medium size but in large trusses, blue-lilac, with white centre; Marc Micheli, double trusses of very large flowers, pale blue-lavender, white behind. Of double white varieties the following may be recommended: Jeanne d'Arc, Mme. Abel Chatenay, Mme. C. Périer, Obélisque, and Mireille. Miss Ellen Willmott is one of Lemoine's newest varieties; it has snow-white flowers.

**SINGLE.**—Marie Légraye and alba grandiflora are both white, fine racemed varieties; to them might be added Mme. Moser. Souvenir de Louis Spath is a very fine, deeply-coloured sort, which ought to be in every collection; Toussaint-Louverture, Negro, and Président Massart are also dark. Mme. Francisque Morel is noteworthy for its very large trusses. Of a lighter shade are Jacques Callot, Eckenholm, Crampel, and Dr. Regel.

To obtain them at their best Lilacs need generous treatment. The ground they are to occupy should be trenched, and if impoverished or worn-out should be strengthened by adding new loam. A sunny, sheltered position is best for them, and during any very dry time they should be watered, especially when the flower-trusses are developing. An occasional mulching with

well-rotted manure is also advantageous. After the flowers are faded the old inflorescences should be removed, so as to prevent the energy of the plant being diverted from the young growths that are to produce next year's blossom to the useless production of seed. At the same time any weak or crowded young shoots may be removed. This is the best and easiest form of pruning, and it tends to produce exceptionally fine trusses the following season.

Lilacs should always be got on their own roots if possible; the practice of grafting them on Privet is a source of much trouble through suckers, and is often a source of ill-health and premature decay. The best nurserymen now supply them on their own roots. They can be propagated both by layers and by cuttings.

With regard to the disposition of Lilacs in the garden, we prefer to grow them in groups or as isolated specimens. Nothing is more charming than a large mass of these garden varieties made up of the different colours from white to deep mauve, for however much they differ in shade or tint they all harmonise perfectly. As single specimens they are also valuable. Grown in this way they should be kept to a single stem at the base, and a certain symmetry of form should be maintained. The late Hon. Charles Ellis was very successful with his Lilacs cultivated in this way at Frensham Hall.

W. J. BEAN.

## HEDGEROWS AND DUST.

THE advent of the motor-car during the last few years has made a great deal of difference in the opening up of country districts which were practically inaccessible before, except by means of a tiresome railway journey with many changes, and a long walk or drive at the end of it. Side by side with increased means of communication, however, there arises the perennial question of dust, and to the lover of Nature or the owner of a garden—the two are often synonymous—this is becoming a serious question indeed in many country places. Beyond the suburban districts, and the larger villages or small towns, there are miles of country where water-carts are unknown, and where the roads are coated with mud in winter, and ankle-deep with dust during the summer. The passage of fast-moving motor-cars during dry weather raises the dust in clouds to settle on the hedges by the roadside in such quantity as



to whiten them over. This, while of no consequence to the owner of the car, is serious when we consider that the leaves are choked with dust and unable to perform their proper functions in assisting the growth of the plant. Two or three dry summers in succession will mean that during the growing season the hedges make very little growth through the dust choking the pores of the leaves; this will lead to the death of the plant in the course of time.

Both evergreen and deciduous hedges seem to be suffering equally through this dust nuisance, as both are weakened most when they ought to be growing vigorously. What chance has a Thorn or a Holly or, in fact, any plant to make proper growth when the young shoots are smothered with dust as soon as they start unfolding, and, but for occasional rain, are not clean until the following autumn. In this district we have now had a fortnight of very dry weather, and the hedges are simply white with dust, and they will be in the same condition for practically the next six months. I have noticed during the last two years how various hedges by the roadside in this district have deteriorated, and if the dust problem is not soon settled, in ten years' time there will be no hedges of any consequence by the roadside, and one of the charms of the country will be gone.

Bagshot, Surrey.

J. CLARK.

## PRIZES FOR GARDENERS. MAY.

### VIOLAS (TUFTED PANSIES).

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best essay upon "*How to Grow Violas*."

A simple, straightforward statement is required, dealing with the propagation and general cultivation of the Tufted Pansy or Viola. Give the names of twelve varieties recommended especially for free flowering, describing the colour of each.

The essay (limited to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than May 31. Both amateur and professional gardeners may compete, but it is to be hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

### FORTHCOMING EVENTS.

May 15.—Royal Horticultural Society's Exhibition and Meeting.

May 23.—York Florists' Show.

May 29.—Royal Horticultural Society's Show in the Temple Gardens (three days).

May 31.—Bath and Western Counties' Show (five days).

June 6.—Royal Horticultural Society's Colonial Fruit Show.

June 12.—Royal Horticultural Society's Exhibition and Meeting.

June 13.—Royal Botanic Society's Show (several days).

### ROSE SHOW FIXTURES IN 1906.

- June 26 (Tuesday).—Isle of Wight.  
 " 27 (Wednesday).—Chippenham, Colchester, Farnham, Farnham, Reading, and Southampton.  
 " 28 (Thursday).—Canterbury, Norwich, and Walton-on-Thames.  
 " 30 (Saturday).—Windsor.  
 July 3 (Tuesday).—Harrow and Sutton.  
 " 4 (Wednesday).—Croydon, Ealing, and Tunbridge Wells.  
 " 5 (Thursday).—Royal Botanic Gardens, Regent's Park (National Rose Society).  
 " 6 (Friday).—Gresford.  
 " 10 (Tuesday).—Gloucester, \*Southend-on-Sea, and †Wolverhampton.  
 " 11 (Wednesday).—Formby, Helensburgh, and Thornton Heath.  
 " 12 (Thursday).—Brentwood, Chipping Norton, Eltham, Potter's Bar, and Woodbridge.  
 " 17 (Tuesday).—Saltaire.  
 " 18 (Wednesday).—Edinburgh (National Rose Society).  
 " 19 (Thursday).—\*Dunfermline.  
 " 20 (Friday).—Ulverston.  
 " 24 (Tuesday).—Tibshelf.  
 " 25 (Wednesday).—\*Cardiff and †Newcastle-on-Tyne.  
 " 26 (Thursday).—Salterhebble.  
 Aug. 18 (Saturday).—Sheffield.  
 Sept. 19 (Wednesday).—Royal Horticultural Hall, Westminster (National Rose Society).

\* Show lasting two days. † Show lasting three days.  
 EDWARD MAWLEY.

## NOTES OF THE WEEK.

**Kew Guild dinner.**—We are requested to remind our readers who are Old Kewites that the annual dinner will take place at the Holborn Restaurant on the 28th inst., at 7.30 p.m., and that the secretary, W. N. Winn, would be glad to hear before the 21st from all who intend to be present.

**Mr. Edwin Beckett.**—This well-known gardener has received the Victoria Medal of Honour, and he is worthy of it. He is well known as the gardener to Lord Aldenham, Elstree, Herts, and there he has accomplished much in the raising of new vegetables and flowers. As a grower, particularly of vegetables, he is in the first rank.

**British Gardeners' Association.** At the last meeting of this association, held in the Royal Horticultural Hall, Westminster, Mr. R. Hooper Pearson in the chair, the secretary reported that twenty-one new members had joined since the previous meeting, bringing the total membership up to 891. Arrangements were made for the annual general meeting, which is to be held at the Essex Hall, Essex Street, Strand (close to the Temple Gardens), on the 30th inst. at 6.30 p.m., when a large attendance is anticipated.—J. WEAVER.

**National Sweet Pea Society.**—Mr. Horace J. Wright, who has just carried out the duties of secretary to the above society with such success during the past four years, has been compelled for private reasons to resign his position. The committee accepted his resignation with the deepest regret, and expressed its high appreciation of the work he had accomplished. The secretarial duties will now devolve upon Mr. Charles H. Curtis, who has been closely associated with Mr. H. J. Wright in the work of the society, and to him at Adelaide Road, Brentford, Middlesex, all communications should be addressed. Mr. H. J. Wright will continue to assist the society as a member of the executive committee and in other ways.

**A bird's nest in a greenhouse.**—Birds often select most unexpected places for their nests. Among the stems and leaves of a Kennedyas covering one of the pillars in the greenhouse at Kew, a pair of robins have built their nest. Being in one of the most frequented parts of the house, hundreds of visitors pass within arm's reach. During the Easter holidays, when the crowds were so great, the birds remained undisturbed. They are very tame, and can often be seen hunting among the plants in the house

for insects. Their efforts in this direction will shortly be increased, all being well, when the young birds hatch out from the five tiny eggs. Why the birds should select this spot for their nest, when there are more secluded places available in the house, is difficult to understand.—A. O.

**Weather in North Wales.**—The weather for the past ten days in this part of the country has been most treacherous, causing great anxiety respecting the fruit blossom. On the 18th ult. we registered 12° of frost, luckily no serious damage was done as the bloom was hardly forward enough. On the 26th ult. we registered 8°. This damaged the early Gooseberries and Pears. Apples are promising very well. The wind keeps bitterly cold from the E. and N.E. We have had one or two heavy snow showers, hail, and some very cold rains, in fact nothing can grow. On the whole it has been a very disappointing spring.—J. S. HIGGINS, N. Wales.

**Primroses at Wisley.**—It was with a good deal of surprise that I read a letter from "D." in THE GARDEN of the 5th inst. Does he wish us to believe that Polyanthus are not Primroses? Surely they are merely Primroses with the stem developed and rising above the ground before the individual flower-stems branch out from it. I do not doubt that all "D." says is true about the famous Wisley Primroses, but why draw comparisons between these and the wild Primroses? There may or may not have been anything at the National Auricula and Primula Society's show to compare with the Wisley flowers; but when "D." goes on to say that the clear, well-defined eye, "the essential feature of true beauty, was lacking in every case in the flowers shown at Westminster on the 17th ult.," one is inclined to ask, why should "D." pass such sweeping criticisms on some of the finest flowers that could be brought together? One might think from his concluding remarks, too, that raisers of Primroses generally are quite blind to the beauty of a clear centre to the flowers.—W. A. WATTS.

**White Amaryllis.**—I have just seen the fine collection of seedling white Amaryllis Mr. C. S. Fielder has at North Mymms Park. These, when recently exhibited at the Horticultural Hall, attracted much notice. There is no other such collection of these beautiful flowers in the kingdom. The many plants there, literally hundreds—for even yet many have to flower—are the product of some ten years' constant and patient crossing, the work having begun at West Malvern. It is interesting to note that the strain, no matter how white the flowers produced, is as robust as any coloured strain. Still further, many of the flowers show not only good size and substance, but very fine form also. The green shading in the strain is found to be easier to eliminate than the coloured shading. The crosses being made this year, using only the finest and purest flowers for parents, promise to produce a strain that will give a high percentage of pure whites devoid of shading and of fine form. Self fertilisation is prevented by the removal of pollen cases prior to the stigma being matured. Some forms that have opened since the date of the exhibit at Vincent Square quite excel in size and form any then shown. It is evident that in a few years a superb strain of pure white Amaryllis will be as common in commerce as now is any coloured strain. From the break have come a few flowers having pure white grounds and deep rose edges. These bid fair to make a new and very charming strain. There seems good reason to think that in a few years that edging will have assumed a clear-cut, well-defined Picotee edging, and be, therefore, a most attractive feature. It is understood that under no circumstances at present will any of the plants find their way into commerce. Mr. Fielder's aim is to create a perfect strain for the gratification of the mistress of North Mymms Park, Mrs. Burns, who prizes her plants highly.—A. DRAKE.

**Flowers in Ravenscourt Park, Hammersmith.**—In this well-kept park—now in bright spring dress—the tender green of the well-known Elm Avenue forming a beautiful canopy, I noticed recently a very effective floral combination, this being composed of a bed of that fine Hyacinth King of the Blues, the true Oxford blue, planted among White Arabis.—Quo.

**Flowers in Regent's Park.**—Perhaps at no season of the year is this well-kept park more beautiful than at this particular period with its wealth of spring flowers. A brave show of Hyacinths was noted on a recent visit, very attractive by reason of the bold masses in which they are planted. To note just a few only of some of the most striking varieties: Gertrude, striped red, large truss, very fine; Grand Maitre, beautiful porcelain blue, large bells and truss; another noteworthy blue is La Peyrouse; a good early sort is Murillo, bright blue, large bells; edged with white Daisies, a nice contrast was afforded. A beautiful flower is Gigantea, delicate pink, compact truss. The well-known Queen of the Netherlands, edged with red Daisies, looked charming. Grandeur à Merveille, rosy white, fine truss, mixed with Gertrude, made an effective combination, as also large plantings of white and blue Hyacinths. The dainty Narcissus poeticus ornatus arranged among some of the varieties made a happy and graceful break. Some bold beds of N. Emperor, with its stately flowers, at once arrested attention. Tulips were just coming into beauty; very fine were those grand whites Joost van Vondel and Pottebakker. Proserpine, with its rich rose flowers, is a variety well worth noting. Wallflowers in the big vases and beds in a fine range of colours—brown, yellow, lemon or pale citron, and purple—added their quota of beauty.—Quo.

**Liverpool Botanic Gardens.**—The appointment of deputy-curator for the above gardens has been filled by the Parks and Gardens Committee. Mr. Walter Hackett, who has been at the Royal Botanic Gardens, Kew, for nine years, and has had charge of the tropical department, has proved successful out of thirty-eight applicants, the five selected being from the following botanic gardens: Kew, Liverpool, Edinburgh, Cambridge, and Hurst. Mr. Hackett received his early training in Birmingham. Mr. Street, in addition to his duty superintendent of Newsham Park, has been appointed as deputy-superintendent of the parks and gardens. These appointments have been made through the promotion of Mr. J. Gutteridge as curator and superintendent of the parks and gardens. Mr. Hackett enters upon his duties early in this month.

**Use of Rhubarb leaves.**—On seeing the notice of Rhubarb as a new vegetable, I told the cook, when supplying the kitchen with Rhubarb stalks for stewing, to use the leaves for me as a vegetable, and she cooked all—enough for three persons. As I am fond of all kinds of green vegetables, I consumed all, and then had my share of the stewed Rhubarb and Apples. I experienced no inconvenience, but found it acted as a gentle aperient. For a number of years I was on the fruit committee of the Royal Horticultural Society with the late Mr. Alfred Smee, at the time doctor to the Bank of England. On each occasion when Rhubarb was put on the table he denounced it as a poison, and told how, on the Monday mornings, when complaining clerks came to him, he was wont to say, "What had you for dinner, and what after?" The reply generally was, "stewed Rhubarb." Then the doctor would say they were suffering from Rhubarb, and administer medicine accordingly.—PETER BARR, V.M.H.

Referring to the remarks of your correspondent re "Value of Rhubarb Leaves" in THE GARDEN of April 21—feeling the want of a spring medicine, I had some leaves cooked. Now, I suppose no palate could relish the bitterness of those leaves, but heroically I ate about 1oz., and I

declare it did for me the same amount of good as 1oz. of Epsom Salts. I had no bad after results, so your correspondent "E. H.'s" advice is worth taking.—E. R. H.

## THE KITCHEN GARDEN.

### RUNNER BEANS AND VEGETABLE MARROWS.

THESE two delicious vegetables can only be counted upon as a chance crop here. They are entirely dependent upon the nature of our uncertain summer and autumn weather, and especially upon the amount of warm sunshine and calm weather they get. Last year's crop of both was almost a failure, owing to a long stretch of cool, sunless weather in September.

But there was one exception among the Runner Beans which deserves to be recorded as a hint to others, and that was a single plant which grew from a common white Haricot Bean, such as is sold by grocers for cooking, which one of my children planted for fun early in April, I think, and which bore a large crop of pods several weeks before the Scarlet Runners had any



TWO GREEN VEGETABLE MARROWS, 15LB AND 18LB. RESPECTIVELY, HANGING CLEAR OF THE GROUND.

appearance of blossom even. Have these Haricot Beans ever been tried by any of your readers before?

As regards Vegetable Marrows, I have for two seasons successfully trained them to grow up vertically on stakes like Vines, and thereby occupy much less ground surface than by the old-fashioned method of trailing them. In this way they also look really interesting and handsome, with their Vine-like appearance and large, orange-coloured blossoms. I enclose a photograph of two large green marrows, which attained the weights of 15lb. and 18lb. respectively, and were hanging clear of the ground notwithstanding the trying weather of last autumn. The only drawbacks to this system of culture are (1) that it takes a good deal of time and raffia to tie up the quickly-growing shoots, and (2) that a band of little "Hooligans" broke into our garden one afternoon (for the first time in ten years) and stripped off all the Marrows they found trained up a stone wall, evidently mistaking them for Melons or gigantic Pears! as we found their gnawed and broken remains over the garden wall. But I do not think these boys will be so badly taken in again or give us any further trouble in this way. Edinburgh. C. S. S. J.

### A USEFUL WINTER TOMATO.

I RECENTLY saw some plants of a Tomato named Beauty of Italy carrying heavy bunches of fruit, and was informed that there had been plenty of

fruit for use since Christmas. This variety is egg-shaped, and over one hundred fruits were counted on a bunch, the largest being almost the size of a hen's egg. It grows well and sets freely, and those having the means of growing Tomatoes during the winter might well give this variety a trial. The method of raising the stock for the winter in this instance is to strike cuttings in the autumn (September is recommended) from summer-grown plants, the shoots taken being those often produced at the extremities of the bunches. The plants come into bearing more quickly than by other methods.

Somerset.

G. H. H.

## EARLY DAYS OF THE DAFFODIL.

I HAVE little knowledge of the Daffodils raised and put on the market between 1890 and 1905. I was travelling abroad most of that time, and had little or no chance of seeing what Mr. Bourne in his excellent "Book of the Daffodil" calls "modern Daffodils." I have, however, an intimate knowledge of nearly all the Daffodils figured by John Parkinson in his "Paradisus in Sol Paradisus Terrestris," or "A Garden of All Sorts of Pleasant Flowers," published 1629. Early in the nineteenth century a group of semi-botanical amateurs took up the Daffodil as a study. The leaders of this group were Haworth, a naturalist; Salisbury, a botanist; Sweet, an author; Ellacombe, father of the well-known Canon Ellacombe; and a few others. Their headquarters were the Physic Gardens, Chelsea. The curator, Mr. Anderson, was sympathetic, and there a collection of Daffodils was grown. There these gentlemen were wont to meet and discuss their points of difference. Salisbury had a private collection, which he grew in pots in his small garden at St. John's Wood. In Sweet's "British Flower Garden" a few Daffodils are figured. Haworth compiled a monograph, over which he must have spent a great deal of time, and the evidence shows he must have overhauled all the herbaria of any account in Europe. While I was working on the Daffodil and exhibiting my flowers at the Royal Horticultural Society, the Rev. M. J. Berkeley cautioned me to remember what happened to Mr. Sweet; but I assured him there was little fear, as I had taken the precaution to grow a bed of *Helleborus antiquorum*, which, according to the ancient Greeks, was an antidote should any of Sweet's symptoms appear.

Dean Herbert and the late Rev. Wolley-Dod looked upon Haworth's monograph with contempt (Mr. J. G. Bakers looks upon it with profound respect), and to pick a hole in Haworth's coat declared that *N. cyclamineus* described by him was an impossible flower. This question of *N. cyclamineus* showed me that Haworth worked amongst the French botanical authorities who knew *N. cyclamineus*, while his list of *Corbularias* showed me that he got some of his names from badly pressed specimens. Of the thirteen species he names I enumerate those I have not been able to recognise—viz., *albicans* and *cantabricus*—are, I think, represented by *C. monophyllus* and *C. Grælsii*. *Aureus*, *gigas*, *lobulatus*, and *obesus*, are probably nice distinctions to be found amongst wild yellow *corbularias*, not easily discernible in cultivated collected bulbs, unless it might be by so keen a discriminator as Haworth. Once in dry sand I found a small *corbularia* so strongly shaded orange that in the failing light in the evening it could be seen when the yellow-flowered varieties were difficult to see. This would answer to *C. aureus*, but in cultivation it lost the orange colour. *C. serotinus*, Salisbury mentions, I believe, as growing at Tarbes. It is figured in Sweet's "British Flower Garden." In company with a friend I searched all round the district of Tarbes, but only found

*C. citrina*, and further, I may say, yellow and sulphur Daffodils do not grow on the same geological formation. Moreover, I do not think a yellow *Corbularia* grows anywhere in France. Another example of names without representative flowers is in Haworth's monograph *N. odoros* section, resulting no doubt from badly pressed flowers, and taking collectors' names for granted. The Rev. S. E. Bourne seems to have found out something more about them than I did. He says *odoros calathinus* and *interjectus* are somewhat similar. Now between *odoros calathinus*, of the *Botanical Magazine*, and *Campernelle Jonquil*, I never could see any difference beyond the name. The same as regards *trilobus*. The three distinct forms of the large-flowered varieties I found were *odoros* (*Campernelle*), *rugulosus*, and *heminalis*. There is no mistaking the one from the other. When compiling "Ye Narcissus or Daffodyl," in 1884, I worked in all Backhouse's, Leeds's, and all the ancient Daffodils from Parkinson's day to Haworth's, and with an asterisk indicated those not then in cultivation. This completed list I commend to Daffodil students, as it gives the raisers of the then modern Daffodils. Many of these have been discarded, but may be found in some old gardens. In a New Zealand garden I found many of the early varieties.

Dean Herbert was the first man, as far as is known, to raise hybrid Daffodils. When writing his "Amaryllidæ" and dealing with Daffodils, he felt certain all that Haworth, Salisbury, and Parkinson called species were not so. Some he concluded were hybrids, and to make sure of this point he fertilised *Poeticus* with the Trumpet Daffodil. When his seedlings flowered he found they were all true hybrids. He painted a plate of them, and this is now in the Lindley library bound up with the dean's monograph of *Crocus*. He then wrote a treatise on hybridisation, which at the time attracted much notice, and doubtless many made a start in raising new Daffodils; but only two men had patience to carry their work through, and these two collections are supposed to be the only ones ever raised. The gentlemen who raised them were Mr. William Backhouse and Mr. Edward Leeds (stockbroker), not his son Dr. Leeds, as stated in Mr. Bourne's book. Mr. Edward Leeds's collection I bought because it was rumoured that he had a clause in his will if his Daffodils were not sold before his death they were to be destroyed. He was then very old, and I did not like that the work of this man, which extended from twenty to thirty years, should be destroyed. At that time no one cared for Daffodils; indeed, they were a despised flower. No better example could be offered on this point than that told to me by Mr. John Fleming, the father of spring gardening. He said, "I should like to have some of your Daffodils." I said, "Well, why don't you?" "Our Duchess," he said, "if she knew that there was a Daffodil on the Cliveden estate would not rest till it was destroyed." Now it was known to all that at the time no lady had greater taste in gardening than the then Duchess of Sutherland.

PETER BARR, V.M.H.

(To be continued.)

## CHRYSANTHEMUMS.

### VARIETIES TO FLOWER IN 6-INCH POTS.

NOT long ago plants of this description were only to be found in the nurseries of the Chrysanthemum specialists and in a few gardens where the growers were ahead of their fellows; but during the last two or three seasons plants in 6-inch pots have become popular for the conservatory as well as for grouping. It was formerly the custom to propagate from

cuttings obtained from the old stools in late November and December for most sorts, and in the case of a certain few easily-grown varieties to carry out the propagation in January, subsequently throwing the old stools on the rubbish heap. In this way stock was obtained from unhealthy and weakly plants, and in consequence many of the stocks became weakened and their constitution impaired. Present methods are likely to change all this, however, for by giving the old stools proper rest, and in some cases shaking out the less promising among them and repotting in some good fresh soil, they have regained their former vigour, and



THE BROAD-LEAVED HELLBORINE (*EPIPACTIS LATIFOLIA*).

produced an abundant supply of healthy growths. Cuttings made from growths obtained through this system of culture are now in excellent condition for insertion, and it would be a perfectly safe statement to make that, given good soil and proper conditions for rooting, almost without exception they should be rooted within a fortnight. Whereas in December there may have been only a few cuttings of each sort available, now each old stool should bristle with sturdy, short-jointed growths suitable for cuttings. Shallow boxes are better for propagation

purposes at this period, and if loam and leaf-mould in equal quantities be passed through a sieve with a rather fine mesh, and there be added a goodly proportion of coarse silver sand thereto, this compost after a thorough mixing should be excellent. In this way an immense quantity of stock may be raised, so that the needs of either large or small growers may be easily met. The use of a propagating frame is quite unnecessary. If full advantage be taken of the side benches of the greenhouse, and a fairly moist bottom maintained, the boxes of cuttings may be arranged here with certain success. The advantage of using boxes of one size is that there is no loss of space. This is a very important point in the spring season under glass, when so much has to be done. Over-anxious growers frequently begin to worry when they see the cuttings flag, which is inevitable in the case of cuttings treated in the manner above described. Those who have raised plants in this way, however, know only too well that losses seldom arise, and the cuttings always seem to pick up and root far more satisfactorily than when they are treated to the coddling in the propagating frame.

When the young plants have become well established, erect and sturdy growth may be encouraged by placing the boxes of rooted cuttings on shelves near the glass. They should be potted up singly into 3-inch pots, subsequently placing them in cold frames to harden off. When these small pots are well filled with roots, which should be during the latter part of June, transfer the plants to the pots (6-inch) in which they are to flower. Use soil of a lasting character, and pot firmly. Late spring propagation answers well for plants treated to this method of culture, beginning with the varieties disposed to flower rather later than the majority, following on with the mid-season sorts, and bringing up the rear with the late October-flowering ones.

B. D. CRANE.

## SOME WILD ORCHIDS.

A PART from the several handsome members of the Lady's Slipper family (*Cypripedium*), there are many interesting and beautiful plants included in the group of hardy terrestrial Orchids, which are well worth growing, and which may be successfully cultivated with a little care and attention. In the genus *Orchis* there are several, one of the finest being

*O. latifolia*, a native of many parts of this country, growing in boggy ground. It is a tall plant, often 18 inches or more high, with broad, spotless leaves, a leafy stem, and a large loose spike of pale purple flowers, among which the long green bracts are prominent. It varies a great deal in form and colour.

*O. maculata* is, of all our native Orchises, the most abundant, and is known to nearly everyone, with its spotted leaves and spikes of flowers, varying from bright purple to pure white. It is pretty in the poorest soils, but much finer in rich ground, developing under cultivation to a great extent. As these two species grow together in a wild state they cross freely, and many fine hybrids are produced, which surpass in beauty either of the parents. One of these in cultivation is *O. maculata* var. *superba*, a free-growing plant, which, under favourable conditions, will soon increase and form large groups, producing a great number of flower-spikes each summer. The best conditions suitable for these plants is a slight slope to the east in a rich, moist loam, with

shelter from hot sun and cold winds. The tubers should be planted in groups of ten or more, and should have a surface-dressing of leaf-soil occasionally, while a little well-rotted manure is beneficial to the plants.

*O. foliosa* (the Madeira Orchis) is one of the finest for a place in the shady bog garden. It has bright green foliage and long spikes of rosy purple flowers in May. Other beautiful kinds which will flourish under the above conditions are *O. laxiflora*, *O. purpurea*, *O. pyramidalis*, and *O. militaris*.

*Green Helleborine* (*Epipactis latifolia*) is a native of our open woods, growing in chalky soil. It possesses handsome foliage, but the flowers are more curious than beautiful. *E. palustris* (Marsh Helleborine) is more showy, with handsome purplish flowers. It spreads freely, and is a good plant for the bog garden in peaty soil. *E. gigantea*, a native of North America, is also an easily-grown plant, with large spikes of purplish flowers.

*Butterfly Orchis* (*Habenaria bifolia*) is a most attractive plant, also found wild in many parts of this country. It is somewhat difficult to establish, but may be grown in loamy soil containing a quantity of lime rubbish. The two North American species, *H. ciliaris* and *H. fimbriata*, are handsomer plants, the former with bright orange-yellow flowers, while the latter has long spikes of lilac-purple flowers beautifully fringed. They are both charming plants for the sheltered bog garden. Most interesting are the members of the genus *Ophrys*. *O. apifera* is commonly called the

*Bee Orchis* on account of the rich velvety brown lip, with yellow markings, bearing a certain resemblance to a bee. It grows about 6 inches high, and has a few glaucous leaves near the ground. It is somewhat difficult to

keep for long, but it may be grown in an open part of the rock garden in calcareous soil. To keep the tubers cool and moist it is advisable to carpet the ground about them with a dwarf-growing plant, through which the flower-spikes can push their way. Other interesting members of this genus are the Spider Orchis (*O. Arachnites*) and Fly Orchis (*O. muscifera*), both natives of this country.

The above-mentioned species by no means comprise all the interesting and beautiful members of the hardy terrestrial Orchis group, some others being *Orchis hircinum* (Lizard Orchis), with greenish yellow long-tailed flowers; and *Ladies Tresses* (*Spiranthes autumnalis*), with small spikes of white flowers.

W. IRVING

## ROSE GARDEN.

### STANDARD ROSES.

**Y**OUR correspondent has done a good service in calling attention to standard Roses.

Visitors to our Rose shows little know to what extent we owe the

grand specimen blooms, especially of the Tea-scented, to the standard or

half-standard stock. Exhibitors can seldom cut an exhibition bloom of a Tea Rose from a one year bush plant, but from standards by careful disbudding the majority of the specimens are up to the desired quality. One of our weakest-growing Hybrid Teas upon bush plants is perhaps Charlotte Gillemot, yet a friend assured me recently that it made a grand head with him when budded on a standard. There is something about the standard Briar that fits it for yielding blossoms of high quality.

I agree with your correspondent as regards *La France*. I have cut the most beautiful blooms from standards, and I should grow this Rose in this form rather than any other. Personally, I prefer the half-standard Briar to the full standard. They seem to me better in every way. The merits of a new Rose can be appraised more quickly from standards or half-standards, and this is of much importance when one desires to be well to the front with up-to-date varieties. The standard Rose has been badly libelled in the past owing to careless budding upon it of varieties absolutely unsuited to be grown upon



[THE BEE ORCHIS: (OPHRYS APIFERA).]



THE BUTTERFLY ORCHIS.

stems. What we want is the glorious free-headed sorts, such as *Caroline Testout*, *Fran Karl Druschki*, *Viscountess Folkestone*, and the like.

As your correspondent asks for names of a few sorts for bordering his lawn, I would suggest *Grües an Teplitz*, instead of *Marquise de Salisbury*; *Mme. Ravary*, *Bouquet d'Or*, *Mme. Abel Chatenay*, and *Antoine Rivoire* by all means, and, in addition to these, *Fran Karl Druschki*, *Clio*, *Pharisaer*, *Augustine Guinoisseau*, *Dupuy Jamain*, *Ulrich Brunner*, *Ards Pillar*, *Admiral Dewey*, *Gustave Regis*, *Billiard et Barré*, *Enchantress*, *Corallina*, *Comtesse de Cayla*, *G. Nabonnand*, *Mme. Antoine Mari*, *Marie Van Houtte*, *Peace*, *Camoens*, *Mme. Alfred Carrière*, *Longworth Rambler*, *Wm. Allen Richardson*, *Conrad F. Meyer*, and *Betty Berkeley*.

For the Rose house or for conservatory decoration the standard Rose is seen perhaps at its best. What grand heads of bloom it is possible to obtain! I know of a specimen of that splendid Rose *Mme. de Watteville* growing in a Rose house, and this tree annually yields some dozens of blossoms. I am often surprised that so few really extra large-headed standard Tea Roses are met with under glass. Protected as they are from injury to the old wood by frost, really huge specimens should be possible if some care is taken in the first place so to tie out the head that a fine formed one is secured. P.

### RESTORING POT ROSES TO HEALTH.

HAVING some unhealthy and exhausted pot Roses to deal with, the following treatment proved successful in restoring them to their natural vigour. I therefore thought a few details of their treatment might be of interest to



readers of THE GARDEN. The plants comprised some of the best varieties of Tea Roses, and were in 6-inch pots. They first came under my charge in January. The weakly shoots were then cut out entirely, and the stronger ones cut back to a good bud. The drainage of the pots was rearranged, and a portion of the soil removed from the top of the pot and replaced with turfy loam with which was mixed a sprinkling of bone-meal. The plants were placed in an unheated greenhouse near the glass, and were syringed freely on sunny days. The few flower-buds that appeared during the spring were removed. In

placed in a light position in a minimum temperature of 45° until growth commenced. When the young shoots were about 1 inch in length the plants were placed in a temperature of 55°, rising with the aid of sun-heat to 60°. During bright weather the plants were syringed twice daily.

A strict watch was kept for aphides which, when discovered, were destroyed by fumigation. A teaspoonful of the fertiliser was applied weekly to each plant until the colour of the flowers was seen, after which clear water only was used. The Roses commenced to flower the last week in March, the flowers being good, and the foliage clean and healthy.

C. RUSE.

Munden Gardens, Watford.

## FLOWER GARDEN.

### THE AURICULA SEASON.

THE present season will long be remembered by Auricula growers as one of the most disappointing experienced



PREMIER GREEN-EDGED SHOW AURICULA MRS. HENWOOD (LEFT), AND PREMIER ALPINE VARIETY MAJESTIC (RIGHT). (Recently exhibited by Messrs. Phillips and Taylor.)

June the plants were placed in a sunny position outside, and careful attention given to watering and syringing during hot, dry weather. In the autumn the plants produced numerous buds, which were kept picked off, as the plants were required for forcing the following spring. In the late autumn they were again brought to the greenhouse, and just sufficient water given to keep the wood in a plump condition. The Roses were pruned about the middle of January. A few of the strongest growers, which had made strong, well-ripened shoots, had the tops of these removed, the weaker shoots being cut back to about 1 inch from the base. The weaker growers had all their shoots cut back to within 1 inch of the old wood.

After the pruning a top-dressing was given consisting of turfy loam and fresh horse manure, mixing with this a 6-inch potful of artificial manure to the bushel. The Roses were then

for many years past. In the autumn the plants had made fine growth, with good, sound, plump centres—without which no good truss can be expected in the spring. The winter months were also favourable to the flower, and anticipation ran high for a fine harvest of bloom in due season. But, alas, these hopes and expectations have not been realised, and instead of a finer bloom than usual, the flowers have to a great extent been crippled by weeks of cold, dry, harsh winds. Cold weather the Auricula can stand, but not the nipping, biting winds we have now so long experienced. The pipe get checked in growth and never properly expand. This is especially so in the case of the edged varieties. The selfs and alpinas not being so stout in petal do not suffer to the same extent; but even these do not give so generous a bloom under such adverse circumstances. So that the season of 1906 must pass into history as a most unfortunate

one for growers of one of the most fascinating flowers.

The accompanying illustration shows the two premier Auriculas at the recent exhibition held by the National Auricula and Primula Society at the Horticultural Hall. The flower on the left is Mrs. Henwood, the premier show Auricula, which won the first prize in the class for green-edged sorts; that on the right is Majestic, the premier alpine Auricula. Both were shown by Messrs. Phillips and Taylor, Bracknell, Berks.

CHAS. HENWOOD.

## THE LARKSPURS (DELPHINIUMS).

LARKSPURS may be divided into two classes, the annual and the perennial. The annual Larkspurs are the crossbred descendants of Delphinium Ajacis and D. Consolida, and they comprise a series of very distinct forms, severally known as Dwarf, Rocket, Branching, Candelabrum, Hyacinth-flowered, Stock-flowered, and Ranunculus-flowered. These are all worth cultivating, but for general purposes the best are the Branching, the Hyacinth-flowered, and the Rocket, which may be had in all colours except shades of yellow, of which the genus Delphinium gives no examples, unless we recognise D. ochroleucum as a yellow, which, properly speaking, it is not. The annual Larkspurs are among the gayest flowers of their class, and the bright blue varieties are very beautiful. They are, unfortunately, of brief duration when sown in spring, and spring sowing of annual flowers prevails so generally that not many growers of such have sown the best sorts in the best condition. The Larkspurs make finer spikes of flowers and last much longer when the seed is sown in autumn, and this practice provides the garden with agreeable verdure through the winter, for the plant is quite hardy, and fine clumps often appear from self-sown seeds.

Perennial Larkspurs are raised from seeds and divisions. They are quite hardy, and will thrive in almost any soil or situation. In common with a majority of the plants that command attention in the garden, they make a finer growth in a good soil than in a bad one; but it is worthy of note that a hot, dry soil is well adapted for them provided the aid of a little manure is afforded. It will be good practice to lift and, if needful, divide and replant every three years, the soil to be well dug over and liberally enriched with manure from an old hot-bed if available; failing this, use any light rich material that may be at hand.

The raising of plants from seed is quite a simple matter, but needs a little care, on account of the liability of the young plants to damp off if too freely or too frequently watered. The best time to sow the seed is in summer or autumn, as soon as it is fully ripe. Sowing in the open border is not a good practice, although self-sown plants very often manage their own affairs well. Seed should be sown in shallow pans or boxes, using good sandy loam, without any manure. Sow with care, to distribute the seed evenly and thinly, and cover with a mere dusting of soil; keep the seed-pans in a frame, and lay squares of glass, or even newspapers, over them to prevent evaporation.

It is always a good practice to raise seedlings by the aid of the original mixture of the soil, without giving any water, until the young plants have made a fair start. As soon as the plants appear the coverings must be removed and the frame be cautiously ventilated. Do not expose to hot sunshine or a frosty east wind, but encourage the plants to grow stout rather than tall, for seedlings that are drawn through being kept too close, and lacking light and air, will be weak in proportion to their slenderness, and a very slight accident, such as a little too much water when the weather is cold, may kill them outright. Larkspurs need no coddling, but protection and encouragement may be afforded without detriment to their natural vigour. Where the soil is naturally





NEW CACTUS DAHLIA THE PILOT.





CROWN IMPERIALS IN GRASS.

dry autumn is the best time for transferring them to their permanent quarters; but where the soil is heavy it is advisable to defer planting until spring. *Ashwellthorpe, Norwich.* T. B. FIELD.

#### CROWN IMPERIALS IN GRASS.

THE Crown Imperial does not look a suitable plant for grass, but when we have a respectable spring, the stems develop straight and sound, and bear a crown of bloom—golden, bronze, dull red, or some pretty shade. This year the Crown Imperials in the garden of the writer have not proved a success, but this is simply due to the cold winds and frothy nights. When in full beauty this Fritillary is an imposing flower.

### COLOURED PLATE.

PLATE 1298.

#### CACTUS DAHLIAS.

SO many beautiful varieties of the Cactus Dahlia have been introduced that they have, to a large extent, caused the old large double show Dahlias to be neglected. So far as garden decoration is concerned this is hardly to be regretted, for the newer Cactus varieties are far better plants for the garden—that is to say, they are more free-flowering, and the flowers are seen to greater advantage on the plants than was the case with the old show Dahlias.

The young plants which were raised from cuttings in February and March, and gradually hardened off, may soon be planted out of doors. If there is any danger of frost at night, each plant may be protected by a garden pot placed over it. The chief essentials in the cultivation of the Dahlia are a rich, deep, and moist soil and strong plants, which must be planted out as early as it is safe to do so, so as to enable them to make good growth before the season of flowering. The Dahlia must not be planted in shady borders or the growth will be weak and spindling. Allow plenty of room between the plants, for the Dahlia is a rampant grower; 5 feet between each plant is not too much to allow. Great care must be taken not to

the stem, so as to damage as few roots as possible; make the main stem of the plant secure to this with strong twine. Four or five thinner stakes should be placed round each plant to which other growths should be tied. The centre of the plant should be kept well tied out, so as to admit light and air freely. If flowers are required for exhibition, each shoot should be allowed to bear only one bloom. During a dry season the plants would be greatly benefited by a mulch of manure, which prevents moisture escaping from the soil to such an extent as it otherwise would do.

The following are good Cactus Dahlias: J. W. Wilkinson (crimson, tipped with rose), William Cuthbertson (scarlet, touched with carmine), Lord Roberts (cream white, with deeper centre), Starfish (orange scarlet), J. B. Riding (yellow and orange), Mrs. H. L. Brousson (light salmon), Mrs. E. Mawley (yellow), and Florence Stredwick (white). T.

### FRUIT TREES ON COTTAGES

THE illustration, which shows a Pear tree on the gable end of a cottage in a Bucks village, points out how valuable (and, alas! how often neglected) cottage walls are for the cultivation of fruit trees. Pear trees seem to thrive particularly well on such a wall, and may be grown on one facing either north, south, east, or west. A tree such as the one illustrated annually produces a fine crop of fruit, while it is an object of beauty from early spring until autumn. Owing to the protection of the wall it rarely fails to give a good crop, and thus has an advantage over bush trees in the open.



JARGONELLE PEAR TREE AGAINST AN OLD BUCKINGHAMSHIRE COTTAGE.



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**DISBUDDING PEACH TREES.**—This is an important seasonable work; upon the manner in which it is carried out depends, in a great measure, the future well-being of the tree. When disbudding—that is, the work of removing the small growths on the older shoots—is completed, each shoot should have at least a small growth at the base and one at the apex. If the latter is absent, the shoot would die, and the former will be trained in to produce fruit the following year. If there is sufficient space to accommodate other growths, then one or two others on each of the older shoots may be left as well as those at the top and bottom. The secret of success in growing Peaches is to have as much young wood in the tree as possible, for the Peach bears its fruit upon one year old shoots, or, in other words, those which were produced the preceding summer. Disbudding must be done gradually. First remove those at the back or directly on the front of the older shoots, and some of those between the apex and base that will not be required. Then in a week or ten days' time remove others, bearing in mind that one at the top and one as near the

with the soil. In turning plants out of pots, make the hole large enough and deep enough to place the ball in the right position without having to apply pressure from above. I have seen people, in planting things out of pots, when they have made the hole too shallow try to push the ball down, instead of taking it out and deepening the hole properly.

## THE BEGINNER'S FRUIT GARDEN.

*Growing the Apple.*—In selecting the site for an orchard or fruit garden, if there is any choice in the matter, it is well to bear in mind that Apples will thrive and bear good crops, if the right sorts are selected, in any good loamy soil free from stagnant moisture. It would be unwise to plant tall standard trees in a wind-swept place where no shelter could be improvised or created. Thus, the top of a hill would not be a suitable site, and a low-lying valley would be even more objectionable, as the blossoms would be destroyed by late spring frosts. In orchard-planting on grass, where the land cannot conveniently be all broken up, holes from 5 to 6 feet in diameter should be dug 2½ feet deep, the turf to be taken off, chopped up, and placed in the bottom. If the subsoil is bad, keep the roots out of it, if possible, by placing something of an impervious nature in the bottom. We have found nothing cheaper or better than 6 inches of cement concrete; and when the concrete has set hard, place the turf over it, and add soil enough to raise the tree to the proper level. Make it firm, and then prune damaged roots, and plant and stake or otherwise secure the tree from violent movement by the wind. We do not think the tree need be braced up tightly so that no movement is possible. A little motion, if it does not disturb the roots, is natural and may be beneficial. Standard Apples in an orchard should not be less than 20 feet to 24 feet apart, and some sorts, such as Blenheim Orange and Peasegood's Nonsuch, may have even more space. Press the soil firmly round the roots. If the soil is fairly good, plant without manure, and feed on the surface. Never place manure round or near the roots. Many trees have been injured and some killed outright by this mistaken kindness. Give manure in the shape of mulch on the surface, and let the rains carry its essence down to the roots, and this will have a tendency to keep them from running down too deep into the bad subsoil. For orchard-planting, have the trees grafted on the Crab stock. No other stock is so suitable as the native stock where large-headed trees are wanted. A piece of land can be given up altogether to fruit. A mixture of standard and dwarf trees and bushes offers the best chance. In this case the ground should be well broken up and, if necessary, manured, but the manure should be well blended with the soil and not placed near the roots of the trees. The work of the roots is to hunt for the food required, and if they have to travel a little way for it the trees will get a better anchorage and a fuller development thereby.

*The Propagation of the Apple* is mostly carried out by grafting in spring. Where large trees are wanted, the Crab stock is the best; where small trees for the garden are required, the broad-leaved Paradise is the most suitable. But the best way for a small garden where the occupier is only a tenant, and no arrangement has been come to with the landlord about compensation, is to plant bush trees on the Paradise stock, and to have them two or three years from the graft or

bud, and to plant 10 feet apart. For the first three or four years two rows of Strawberries may be planted between each two rows of Apple trees, or one row of Gooseberries, Currants, or Raspberries; but there must be no digging with the spade over the roots of any Apple tree that is grafted on the Paradise stock. At the beginning there must be a clear space of 3 feet from the stem round each tree where no spade must be used. Annual top-dressings of manure or manurial compost should be given, the soil kept free from weeds, and the surface stirred occasionally with hoe or fork to keep the soil in a healthy condition.

*Pruning the Apple.*—When a young tree has been cut back in the nursery, only a little shortening will be required the first year. All trees planted in autumn should be cut back in February or March following; and trees planted late in March should, beyond the merest shortening, remain till the autumn. The object of cutting back is to furnish the tree with branches to lay a foundation, and when that is done the pruning will be confined to thinning in summer and a little shortening in winter, always bearing in mind that if we want a branch growing in any direction we must prune to a bud pointing in that direction.

*Root Pruning.*—If a tree runs much to wood, the roots go down deep to find the necessary moisture, and the result is soft, sappy shoots which never ripen or become fertile. The remedy, then, is to lift the roots, and this is the best course if the tree is of a manageable size, and carefully replant, laying the roots out in the proper direction, not more than 9 inches from the surface. Root pruning is done by opening a trench 3 feet from the tree, working up to the roots, and pruning the largest. This work requires some judgment, and only a portion—or, say, one-half—should be done at one time, the trench to be filled up and the soil rammed in firmly.

*Diseases.*—Canker is the worst Apple disease, as it destroys its vitality, though it may be some time about it. The disease in its worst form has a fungoid origin, but it acts chiefly upon trees predisposed to it. A tree with its roots in a cold, damp soil may be attacked by canker any time, and in that case the remedy is to lift the tree and place the roots under more healthy conditions, at the same time removing the cankered parts with a sharp knife or chisel, and dressing the wound with Stockholm tar.

*Varieties.*—We give a few sorts which may be planted anywhere, if the land is fairly suitable and reasonable care taken in the planting and management. A long list is not wanted, as there are too many Apples grown. A good succession may be had by planting, say, six sorts for dessert and twelve for cooking. Taking the cooking sorts first: there ought to be one or two Codlins. Lord Suffield is a good early cooking Apple, but the tree does not grow well; Lord Grosvenor is a better grower. Other good sorts are: Mank's Codlin, New Hawthornden, Waltham Abbey Seedling (a good, clean-growing tree), Bismarck, Annie Elizabeth, Alfriston, Stirling Castle, Lane's Prince Albert, Newton Wonder, Bramley's Seedling, and Cellini Pippin. For dessert, plant Cox's Orange Pippin, Ribston Pippin, Allington Pippin, Fearn's Pippin, Lord Burghley, and Sturmer Pippin. Do not gather the fruit too soon, and store in a cool room. Wrap the best late fruits in paper and store them in boxes in a



2. DISBUDDING SHOOT. a. GROWTH TO ATTRACT SAP TO FRUIT, STOPPED. b. SUCCESSIONAL BEARING SHOOT TO TAKE PLACE IN FOLLOWING YEAR OF THAT NOW FRUITING.

base as possible are all-important. At the third and final disbudding, leave those only which are required to train in for future fruit-bearing.

*Sowing Biennials.*—Wallflowers, white Foxgloves, Sweet Williams, Canterbury Bells, Hollyhocks, and any other biennial or perennial plants which may be required should be sown now. A considerable improvement has been made in Wallflowers; some of the new colours are charming. To keep the plants dwarf and sturdy they should be sown and grown in rather firm ground. If the land has been freshly dug, tread it when the surface is dry. Sow the seeds thinly in shallow drills to take about half-an-inch of covering. The drills should be 8 inches apart, to give room for surface-stirring. The seeds soon germinate, and, as soon as visible, run the Dutch hoe between them. When the plants are 3 inches high, transplant in nursery beds 6 inches apart, making the ground firm. If planted in loose ground, they do not branch out and become bushy, nor do they transplant so well in the autumn.

*Seeds of all Hardy Plants* of which seeds can be obtained, and that it is desirable to raise from seeds, may be sown now under similar conditions; but the plants should be transplanted before they rob each other in the seed-bed. The reason why many plants flower so poorly is that they are either sown too late or have been neglected and starved in the seed-beds. In transplanting any small plants during the spring, see that the roots are properly placed in the soil and not hung up in the hole when the dibber is used, nor yet left without being in firm contact

cool place. Place a label with the name of the fruit and its probable season on each box, as the less fruits are moved about until ready for use the better.

### TOWN GARDENING.

**Strawberries in the Autumn.**—Without growing autumn-fruiting varieties proper it is possible to obtain this delicious fruit in September. Moreover, by the method I will describe, the crops of fruit may be had from the plants in one season. It is usual to consign forced Strawberry plants to the rubbish heap when the fruits have been gathered from them. Those, however, who appreciate Strawberries in the autumn should save some of the best. Remove about an inch of the surface-soil and replace with fresh turfy soil with which some manure has been mixed. Make sure that the drainage is good. Place them in a sunny position on a bed of ashes. Carefully attend to them during the summer months in the way of watering, removing runners and weeds. Give the plants plenty of room, and syringe morning and evening. During August, when the flowers appear, give manure water, and continue it while the fruits are developing. If they are thinned out to six or eight to each plant some excellent fruits may be gathered in September.

**Late Sowings of Sweet Peas.**—Sweet Peas may still be sown; they will provide a welcome succession to those sown a month ago. If sown in the open ground without any special treatment, they might be rather too late in flowering; but, fortunately, there is a very easy method of making them germinate quickly. This is by soaking the seeds in hot water before sowing. The water must not, of course, be boiling, but must be so that one can bear the hand in it. By soaking them in water heated to this degree for a few hours, the seeds will germinate several days sooner than if they were sown direct in the open border.—T.

### THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, W.C.

#### SPARAXIS AND IXIAS.

"A. D. G." sends some very beautiful *Sparaxis* and *Ixia*. Our correspondent mentions that in a recent note it was stated that these bulbs can only be grown in England under glass. Of course, our correspondent was quite wrong. "A. D. G." says that they are grown in many gardens out of doors in the neighbourhood, and also that *Ixia* flower a little later than *Sparaxis*, and do not seem to increase so fast. The flowers sent certainly show that outdoors they are a great success.

#### ROSE COLOURED LILIES OF THE VALLEY.

Dr. Ragionieri sends from Florence two most interesting Lily of the Valley crosses, but at present we do not think our correspondent has raised one of great horticultural value. The flowers are certainly larger than those of the ordinary rose-coloured form, having taken after the seed-bearing parent, Fortin's var., but the colour in the specimens sent is too pale, being

intermediate between the two parents. Good forms, however, may be obtained by selection, and a rose-coloured Fortin's var. would prove a great gain.

#### FLOWERS FROM GROOMBRIDGE.

"Crossways" sends an interesting selection of flowers for our table. They include *Cinerarias* of various colours, *Nicotiana Sanders*, *Schizanthus pinnatus*, as well as *Primroses* and *Polyanthuses* in variety. The Indian Lily sent is *Lilium nepalense*, still a somewhat rare but beautiful species. The *Primula* is *P. verticillata*, while the yellow-flowering shrub is *Ribes aureum* var. *præcox*, an early-flowering form of the North American "Buffalo or Missouri Currant."

#### SCHIZANTHUS FLOWERS.

These pretty butterfly-like flowers are in full beauty, and among the most interesting contributions of late to our table these have figured largely. Mr. Coster sends from The Gardens, Froyle Place, Alton, Hants, a charming box of blooms, with the following note: "The *Schizanthus* is now making a good show in the greenhouse. The seeds were sown in August, and the plants kept in a cold frame till they were ready for the final potting, and were then moved into the greenhouse near the glass."

#### SEAKALE BEDDARD'S IMPROVED.

From Catmos Gardens, Oakham, Mr. S. A. Cheffins, sent some remarkably fine and delicious heads of Seakale. He writes: "This variety is an improvement on the old purple, and almost equal in quality to Lily White. This is from our latest batch, and has not been forced to any extent. We have simply excluded light."

#### PHILLYRÆA VILMORINIANA.

We have received from Messrs. G. Bunyard and Co., Royal Nurseries, Maidstone, a splendid branch in flower of *Phillyræa vilmoriniana*. Our correspondents state that the plants were moved in the spring of 1905, and are a mass of bloom now. This is one of the best of the family. It is a foamy mass of fragrant bloom, presenting a very pretty sight in April. Its leaves are dark green and leathery—a very good garden shrub indeed.

#### DENDROBIUM WARDIANUM.

From The Gardens, Lawnhurst, Didsbury, Manchester, Mr. J. Towe sends us a photograph (unfortunately, not suitable for reproduction) of a very good plant of this showy *Orchid*, together with the following particulars: "Last year it made three growths, their respective lengths being as follows; 2 feet 4 inches, 2 feet 8 inches, and 4 feet. The number of flowers on the plant was ninety-seven; one flower measured 4½ inches from tip to tip. The plant is three years old, and grown in a 6-inch pot."

#### PANSIES (VIOLAS) FROM ROTHESAY.

Messrs. Dobbie and Co. of Rothesay send us some of their beautiful *Violas*. The flowers are exceptionally large and varied in colour. Among those we notice of exceptional beauty are *White Empress*, a creamy white flower, with a small yellow eye; *Miss Anna Callan*, shaded with a beautiful lavender-mauve, and with purple rays; *Dr. McFarlane*, a very rich-coloured flower, velvety black in the centre, shading to a lighter colour—the deep yellow eye shines out particularly; *Isolde*, a very finely-shaded flower, the upper petals rich yellow, and the lower almost an orange colour; *Minnie J. Ollar*, one of the edged flowers, primrose yellow, and mauve round the edge of the petals; *Mrs. J. McCrae*, a pure white flower, one of the whitest we have ever seen; *Hawk*, another edged flower of great delicacy of colour; *Shamrock*, a very pretty flower, quite a primrose yellow; *William Rookwood*, a very large flower,

but not at all coarse, the colour bright yellow, the lower petals intense orange; *Nellie Currie*, quite a plum colour, very rich, the upper petals being lighter; and *Princess Ida*, a very delicate heliotrope colour. These *Violas* make a great show in the garden. All the flowers sent show how wonderfully well *Pansies* grow at Rothesay. We are pleased to see that Messrs. Dobbie are giving great attention to these tufted forms, which make such a display in the garden from spring until practically the frosts.

#### HARDY YELLOW AURICULA.

Mr. G. Hunnybun, Old Court Hall, Godmanchester, sends some extremely beautiful hardy yellow *Auricula* flowers. Not only are the shades clear and varied from quite a primrose down to almost orange, but the flowers have also a very sweet scent. We hope our correspondent will keep on improving this interesting strain.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**ROSES.**—These are now growing freely, and require plenty of moisture at the roots, especially the strong-growing rambling kinds. Where the soil is of a light, sandy nature, a good mulching of stable manure will be of great benefit. If the mulching is objectionable, because it is thought to have an unsightly appearance, it may be slightly covered over with fine soil. On the first appearance of insects, syringe the plants with a solution of soft soap or one of the prepared insecticides, such as Bentley's Extract of *Quassia*, which is an excellent preparation for killing fly without injuring the foliage in the least, although it is rendered very distasteful to the insects. The Rose-leaf caterpillar is also very troublesome sometimes. Hand-picking is, perhaps, the best remedy.

**CLIMBING PLANTS.**—These are appreciated more and more, as they deserve to be. Special attention should now be given to those which make rapid growths, as these are very liable to be broken off by rough winds or become entangled. The aim should be to cover the supports without the least overcrowding, allowing some of the growths to hang loosely. In tying, allow plenty of room for the growth to expand; otherwise the ties will probably cut through the shoots when they are soft and sappy. Climbers may be planted at almost any season of the year, as nurserymen supply good plants established in pots, and summer planting has much to recommend it.

**EARLY-FLOWERING CHRYSANTHEMUMS.**—These are a very valuable class of plants, and are largely used for bedding and for brightening herbaceous borders. The blooms are also very useful for cutting purposes in the early autumn months, and for this purpose a quarter is chosen for them in an open position, where they receive full sunshine. Plant them about 18 inches apart each way, pinch them back about twice during the season to induce them to grow into bushy plants, and, if the weather is hot and dry, give copious waterings until they become established. It is advisable not to disturb them, as the continued wealth of small blooms they give is better than the few larger blooms obtained by disbudding. The varieties of early-flowering *Chrysanthemums* are numerous, embracing many shades of colour.

G. D. DAVISON.

Westwick Gardens, Norwich.

### FRUIT GARDEN.

**PINE-APPLES.**—Those plants which were started at the beginning of the year will now be approaching the ripening period, and till they show signs of changing colour will require a judicious application of liquid manure at the roots, for any

check given to the fruits when swelling will cause premature ripening and very inferior quality. The temperature may rise when the house is shut up in the afternoon to 95° or 100° with bright sunshine, but every part of the house must be thoroughly moistened. As soon as the fruit is cut, the plants should receive a thorough soaking of water in order to keep the suckers growing unchecked, leaving not more than one or two on each plant. The young stock at this season if well rooted may be potted up into their fruiting pots. The soil best adapted for Pines is a fibrous loam, an 8-inch potful of half-inch bones, and the same quantity of soot should be added to each barrowful of soil for the final potting. The balls of soil should be well moistened before potting; afterwards but little water will be required for some time. A moist, warm atmosphere must be maintained. Avoid the use of too much fire-heat at this date; close the house early.

**FIGS.**—Attend well to stopping and thinning the shoots in the early house, so as to expose the ripening fruits well to the sun and air, applying water moderately. Do not allow either roots or the atmosphere, however, to get too dry, as the second crop must be considered. Succession Fig houses will require considerable quantities of water at the roots, especially if the borders are well drained and of a limited size, and if the roots are well curtailed, as is necessary for the successful cultivation of the Fig, liquid manure may be liberally supplied. Mulching will also do much to keep the roots healthy. Syringe the trees morning and afternoon, and keep the atmosphere moist. Thin out the shoots so that undue crowding will be avoided, pinching those that remain by squeezing the point of the shoot at the fifth or sixth leaf.

**MELONS.**—Early Melon plants that are swelling their fruits should receive liberal waterings with weak liquid manure, being careful not to allow any excess of moisture to lodge about the base of the stem. If the roots are showing on the surface of the ridge or bed, they may have a slight top-dressing of loam to which has been added a small proportion of artificial manure. Keep the atmosphere moist, and lightly syringe the plants when closing the house, which may be done at a temperature of 90° in bright weather, with a night temperature of from 70° to 75°. When the fruits stop swelling and begin to ripen the watering and damping should be discontinued, but not so suddenly as to cause the leaves to flag. Continue to plant succession batches and make further sowings.

**CUCUMBERS.**—Plants in full bearing should be regularly relieved of their fruits as soon as these are large enough to cut, for if left on longer they soon weaken the plants. Fresh growths should be encouraged by frequent thinning out and cutting back the exhausted shoots, stopping the young growths at the second or third leaf, and removing all badly-formed fruits as soon as they are noticed. The plants require much water at the roots during hot weather, and their cropping season can be considerably extended if they are given a light top-dressing of well-decayed manure every ten days. It is advisable, however, to raise succession batches from seed where a constant supply is required. **THOMAS WILSON.**  
*Glamis Castle Gardens, Glamis, N.E.*

### ORCHIDS.

**PHALÆNOPSIS.**—The genus *Phalænopsis* when well grown is one of the most beautiful and useful of all Orchids. Unfortunately most of them flower in November, when fogs are so prevalent, and I have seen a house full of bloom destroyed with one night's fog in London. One variety, however, namely, *P. rimestadiana*, flowers at the present time, and should be grown in every collection. *Phalænopsis* require a hot, moist atmosphere; the temperature should never be allowed to fall below 70° during the growing season, and even in the winter, when the plants are at rest, a tem-

perature of 65° by night should be maintained. They should be well ventilated; that is to say, as much air as possible should be admitted to them without unduly lowering the temperature or creating draughts. A very important point, too, is to keep them free from drip, especially at this time of the year, when a drip from the roof is very cold; if this settles on a leaf it causes a disease known as the spot. One should also be careful when watering or syringing between the pots not to wet the foliage.

Most of the sorts, such as *P. amabilis*, *P. stuartiana*, *P. schilleriana*, *P. sanderiana*, *P. aphrodite*, &c., are now rooting freely, and the present is a good time to renew the material. They grow equally well in teak baskets or shallow pans. I prefer the latter, as they are easier to manage when the plants require more root room. Well-rooted plants in baskets should not be disturbed unless the receptacle is too small, in which case the old material should be pricked out and the whole should be placed in a larger basket. Place some clean crocks at the bottom and around the sides between the two baskets, and surface with living heads of sphagnum moss.

*P. RIMESTADIANA* has been imported in large quantities the last few years, and it is usual to start them in small pans; plants of last year's importation that were treated in this manner, may now be given a shift in a size or two larger as the need may be. The pans should be crooked to one-third their depth, over which place a thin layer of sphagnum moss. Then place the plant in position so that the crown is a little above the rim of the pan, and work between and about the roots to within an inch of the rim a mixture of equal parts good fibrous peat and sphagnum moss and one quarter partially decayed oak-leaf, freely intermixed with small crocks and coarse sand, and surface with living heads of sphagnum. Place the plants as near the roof-glass as possible at the north side of the house, and spray the moss once or twice a day in order to get it to grow. The plants do not require watering through until the new roots have penetrated the moss into the soil below.

**W. H. PAGE.**

*Chardham, Bourton-on-the-Water, Gloucester.*

### KITCHEN GARDEN.

**ASPARAGUS.**—Few vegetables are more sensitive to cold than this. While the weather continues so cold and there is danger of frost, cut the shoots when about 6 inches long late in the afternoon. They should then be tied up in bundles and placed in a saucer of water in a cool place; but when frost is not feared the morning is the best time for cutting. Asparagus plants, both young and old, are often injured by being cut too severely; one must always bear in mind that it is necessary to leave a sufficient number of growths to enable the plants to grow well, and to make good crowns for another season. Young plants ought not to be cut till the third year at the earliest, and then only very lightly.

**ONIONS.**—Ailsa Craig Onions that have been brought on in heat and thoroughly hardened off should now be fit for planting. The ground should have been prepared last winter for this crop by being thoroughly manured and trenched. Lightly fork in now a dressing of bone-meal and soot, making the ground as fine as possible. Make the ground firm and rake off rough knobs of soil and big stones. Plant firmly with a trowel in rows from 16 inches to 18 inches apart, and 1 foot from plant to plant. Handle the young Onions with great care, to preserve the roots, and do not plant deeply. Keep the hoe well at work among the planted out Tripolis and main-crop Onions.

**CELERY.**—The earlier sowings of Celery will require attention for pricking out. If a cold pit is not available, select a sunny position where a rough frame can be made and a few spare lights used to cover the young plants when pricked out. Remove a layer of soil; then spread over the

surface a layer of well-decayed manure. Cover the manure to a depth of 2 inches with the soil that was removed. If the soil is dry, give a watering before pricking out. The seedlings should be pricked out in lines about 5 inches each way. Put on the lights and keep close for a few days. Syringe the plants until commencing to grow, when air must be given freely.

**LETTUCES.**—Tie up for blanching Cos Lettuces that were planted last autumn. The Bath or Brown Cos is one of the very best varieties for this purpose. Tom Thumb and Hammersmith Hardy Green are good Cabbage varieties for standing through the winter. Make successive sowings of Lettuce every fortnight, and sow, if possible, where some can remain for cutting. Superb White Cos, Perfect Gem, and All the Year Round Cabbage Lettuces are all good varieties. If a deep green Lettuce is desired, Perfect Gem should be grown.

**J. JAQUES.**

*Bryanston Gardens, Blandford, Dorset.*

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

### FLOWER GARDEN.

**CHRYSANTHEMUMS TO FLOWER AT CHRISTMAS (Viola).**—You should stop the growths of your Chrysanthemums at each succeeding 6 inches of growth, during the growing period, giving the last stopping about the middle to the end of the third week in July. From this point grow on the plants to the terminal buds. Do not allow the whole of the terminal buds to develop, but thin out to say, one to three on each shoot; this should ensure the development of blooms of a desirable size and good quality. No definite time can be fixed for the plants to be potted into their flowering pots. Assuming they are now in pots, and if not already potted into 4½-inch pots, they must be given pots of this size first; when they have well filled these with roots, the plants should be potted into their flowering pots, which may be either 8-inch or 9-inch, and in a few instances in pots measuring less inches in diameter.

**PLANTS FOR CHALK SOIL (R. W. Acroft).**—If you avoid such things as *Rhododendrons*, *Ledum*, *Andromeda*, *Asalea*, and other plants frequently included in catalogues as North American plants, you have still a good choice of flowering and evergreen shrubs to work upon, e.g., *Laurels*, *Hollies*, *Berberis* of sorts, *Lilacs*, *Philadelphus*, *Pyrus Malus* and its varieties, *Prunus Pissardi*, *Yew*, *Box*, *Magnolias*, *Privet*, the majority of coniferous plants, *Spiræa*, *Deutzia*, and *Yucca*. Of herbaceous things, *Phloxes*, *Hepaticas*, *Lenten* and *Christmas Roses* are among the number that do not succeed unless special provision is made; and *Roses*, if the natural soil is shallow, should also have beds specially prepared for them. But you may plant *Michaelmas Daisies*, *Iris*, *Pyrethrums*, *Perennial Pae*, *Poppies*, *Stenactis*, *Sunflowers*, *Anemones*, *Anemone japonica*, *Carnations*, *Candytuft*, &c. *Linum flavum* is the least suitable for edging, double white *Arabis*, *Aubrietia*, *Saxifraga*

caespitosa, or Armeria would be better. *Alyssum maritimum* is an annual. There are green-flowered forms of the Rose, the Dahlia, Chrysanthemum, Polyanthus, &c. *Rumex crispus* grows 5 feet to 6 feet high, with huge glistening-white Poppy-like flowers, and very handsome, glaucous foliage. *Gentiana acaulis* prefers a light, open soil, with much moisture and firm planting.

**CUT FLOWERS (F. L. Simons).**—Good Roses for planting in your garden for cut flowers are *Güis* an Teplitz, Caroline Testout, La France, Mme. Abel Chatenay, Grace Darling, and Viscountess Folkestone. Other flowers which you would find useful for cutting, and which would doubtless grow well in your small garden, are Daffodils, German Iris, Spanish Iris, Heleniums, Gaillardia, Carnations, Montbretia, Michaelmas Daisy, Japanese Anemone, Mignonette, Pyrethrum, Helianthus Miss Melish and other small-flowered sorts, Delphinium, Aquilegia, and Chrysanthemum leucanthemum (the Moon Daisy). These are all easily grown, and will provide plenty of material for cutting.

**FLOWERS FOR MAY (Stocky).**—You should have a good collection of May-flowering Tulips, especially the Darwin varieties. Some of the late Daffodils—the varieties of Poeticus (the Poet's Narcissus)—flower in May. These bulbs should be planted in early autumn. The Flag Irises (plant in autumn); *Violas* (take cuttings in July, place under a hand-light on shady border); Wall-flowers (sow now outdoors); *Doronicums* (plant in autumn); *Crown Imperials* (plant in autumn); *Fritillaries* (plant in autumn); *Muscari*, *Grape Hyacinth* (plant in autumn); *Anemone fulgens* (plant in autumn). *Arabis*, *Aubrietia*, *Forget-me-not*, *Polyanthuses*, and *Primroses* may be sown outdoors in June. You should sow seeds of hardy annuals outdoors in September. They will make strong plants by the winter, and will then pass through the cold weather unharmed and flower early the next year. *Silene*, *Shirley Poppy*, and many others may be treated thus.

**STOPPING CHRYSANTHEMUM BLOOMS ON EACH PLANT (Norfolk).**—We assume you simply want to grow some good blooms, and these to be at their best during the months of November and December. If this be so, let the plants develop their growths in a perfectly natural manner, and take up four or five shoots as soon as the latter evolve. If crown buds are to be retained, and they always develop individually in the apex of the shoot, rub out the young and tender shoots surrounding the bud, leaving the latter quite alone. The bud is then retained. Crown buds invariably develop during late July, August, and early September. Subsequent thereto the shoots develop terminal buds. Terminal buds are so described because they mark the termination of the plant's growth, hence the name. These latter buds are evolved in clusters. To obtain the best results retain only one bud—and this should be the largest and best-shaped one—on each shoot. If this reply does not answer your question satisfactorily, please write to us again.

**NEW GARDEN (Hor).**—Raspberries will probably do well, but we should certainly plant more Gooseberries, as these proved successful with you. It is now too late to plant Apple trees; you must wait till the autumn. In the meantime dig the ground deeply and manure it, and, instead of leaving it bare all the summer, you might sow it with some strong-growing annuals, such as annual Chrysanthemums, Larkspur, Lavatera, Clarkia, and Godetia. Yes, judging from your plan, we think the lawn would look far better if the beds at each corner were done away with and sown with grass seed. In the border where the Pear trees are planted, instead of leaving the ground bare you might well grow Parsley or Strawberries. Why not plant the bed near the house with *Hypericum* (St. John's Wort); this is evergreen and flowers freely in summer. The best climber for your purpose is *Ampelopsis Veitchii* (the small-flowered Vir-

ginian Creeper); this clings readily and soon covers a wall most effectively. This is deciduous.

**LAWN DRESSING (John Wallop).**—You should mix the soot and wood ashes together in equal proportions for dressing your lawn, and you could, in addition, add a little basic slag in the proportion of about half as much as either of the two former ingredients. The whole should be mixed with its bulk of finely-sifted soil, taking care to thoroughly mix them together, so that the various ingredients may be evenly distributed when sown. If the soil you use is a little on the moist side the soot and wood ashes will not be so dusty when they are applied to the lawn. Apply during showery weather, and give two light applications rather than one heavy one.

**LILIUM GIGANTUM (Novice).**—This is one of the hardest Lilies, and is not difficult to grow; it thrives best in a sheltered position such as that provided by a bank of shrubs, and it is best planted between thinly-planted shrubs, which will serve to protect the young growths in spring. The soil must be deep and well drained, and should consist largely of sandy peat and leaf-mould, with which some rich loam and a little manure are mixed. Years sometimes elapse before the bulbs send up their flowers. You should get "Lilies for English Gardens," by Miss Jekyll. Good books on general gardening are "Gardening for Beginners" and "The Century Book of Gardening." All three are published by George Newnes, Southampton Street, Strand.

**CARNATIONS (P. L. Haggard).**—You do not say what sort of Carnations you have, whether they are border, Tree, or Malmesbury sorts. We presume, however, they are plants of the ordinary border Carnations. You should now plant them out of doors in a border that has been well dug. Remove the plants from the pots, and plant carefully so as not to damage the roots. Plant them at such a depth that the young growths at the base rest on the surface of the soil. Make the soil firm about them. No, you cannot increase them by removing the small shoots now. You must leave them alone, allow the plants to grow and flower; then at the end of July or early in August the side shoots must be layered—that is to say, they must be pegged down in the soil, and if properly treated will take root and form new plants. If you will write us again in July we will tell you how to proceed with the work of layering the shoots.

**CAMPANULA VIDALII (C. Prentiss).**—This shrubby Campanula cannot be grown outside except in the most southern and warm parts of this country; even there it has to be protected during the winter in case of frost. Instances have been recorded of plants going through the winter unharmed in South Devon, and flowering freely the next summer; but the glass in this particular locality did not fall below freezing point. The best way to grow this plant is to treat it as tender, growing it on in pots from seed, and planting it out in May or June for flowering. Seeds should be sown in spring, and plants will flower the second year from sowing. A mixture of fibrous loam and leaf-soil with plenty of sharp sand will suit it well, and when planting out a warm, sunny situation should be chosen for it.

**IRISES FOR MARSHY PLACES (H. M., France).**—Many Irises will grow in boggy ground, one of the finest being the Japanese Flag (*I. Kienperei* or *levisgate*), with its large flowers in great variety of colours. The Siberian Iris (*I. sibirica*) is also a good plant for the waterside, growing 3 feet to 4 feet high, with flowers of various shades of purple as well as white. One of the best forms of the last is the variety *sanguinea*, with its richly-coloured bracts. There is also the North American Iris *versicolor*, which is a free-growing and free-flowering plant. It will soon make itself at home in marshy ground, seeding freely and germinating readily. Others worth growing are *I. albo-purpurea*, *I. Delavayi*, *I. tridentata*, as well as the common water flag, *I. pseudacris*.

**REHMANNIA ANGULATA (F. J.).**—This plant is best treated as a biennial. The time of sowing depends on the period when it is required in flower. If sown in July or August the seedlings should be potted off in small pots as soon as they are large enough to handle, using a mixture of sandy loam and leaf-soil. Through the winter they should be kept in a cool house near the glass or in a heated frame. In spring, as soon as they begin to move, the plants should be potted on, and, finally, if intended to flower in pots, should be moved into the flowering size by the end of April or beginning of May. These plants will come into flower about the end of the latter month. The plants you have in 2-inch pots should be at once put into 6-inch or 7-inch pots in which they will flower, but if larger specimens are required bigger pots may be used. Well-rotted cow

manure mixed with the potting soil is beneficial with the final shift.

**FERNS FOR CASH (F. V. H.).**—You should write to Messrs. H. Stansfield, Fern Nursery, Sale, near Manchester, for a small *Todea superba* for centre, *Trichomanes radicans* for sides, and *Hymenophyllum tunbridgense* for surface. The case should not be exposed to sunshine if Filmy Ferns are used; otherwise they are exactly suited if planted as described in article alluded to.

**ANEMONE FULGENS (Anemone).**—This species, like some others of the tuberous-rooted section, suffers from the attacks of fungus, the tubers being completely destroyed while in the dormant condition; at other times the plant suffers from making too early a start into growth. The result is that a large number disappear entirely, while others are weakened. It prefers a well-drained holding loamy soil, without manure. Permanently-planted stock should be sheltered from north and east. The best means of keeping the plant in good health is to lift the roots each year, and give a period of complete rest out of the soil. By lifting in the middle or end of July, placing the roots in boxes, and covering with sand in an airy position where no wet reaches them, the tubers will remain in good condition and may be replanted in November.

## TREES AND SHRUBS.

**SELECTIONS OF HOLLIES (L. T. S.).**—I shall feel much obliged if you will, through your paper, give me your selection of Hollies as under: 1. Three best green Hollies for making an ornamental hedge. 2. Three best green Hollies for single specimens. 3. Two best Silver Hollies for single specimens. 4. Two best Golden Hollies for single specimens. I should much prefer the green Hollies to berry freely. We advise: 1. Named varieties of the common Holly. 2. Holly *Wilsonii*, *Hendersonii*, and *Shepherdii*. 3. Holly *Handsworth Silver* and *Grandis*. 4. Holly *Golden Queen* and *Mme. Briot*.

**TRANSPLANTING AZALEAS (C. G. O. B.).**—The Azaleas and Rhododendrons mentioned by you can be moved with but little risk, provided care is taken in the matter. The best time for carrying it out is in autumn, when the leaves of the Azaleas have dropped. After this it is very essential to see that they do not suffer from want of water at the roots.

**APHIS ON ABIES (Hope Park).**—Your Abies appears to be infested with an aphid of some description. You cannot do better than syringe it once a week for a few weeks with strong soft-soap water, into which half a pint of paraffin has been added to every four gallons of water. Keep the paraffin well mixed with the water as you are using the mixture.

**POPLAR TREE ROOTS (H. H. B.).**—There is no doubt that the Laurels are dying because the roots of the Poplars impoverish the soil. You should dig a trench some 2 feet or 3 feet deep so as to cut off the roots of the Poplars between them and the Laurels. Leave the trench open for a year. All the cut ends of the Poplar roots will die and the Laurels will have a better chance of growing. Water the latter thoroughly, and then give a mulch of manure. Once the Laurels become established they will probably take care of themselves quite well.

## THE GREENHOUSE.

**BEGONIAS FROM SEED (Begonia).**—Your seedlings ought by now to have made a third leaf, and should then be carefully pricked off into pans filled with sifted leaf-soil in which they may remain in a temperature of about 65° until they are large enough to be placed singly in small pots, afterwards gradually inuring them to the temperature of a greenhouse. Pots 5 inches in diameter are a good size for the first season. The plants will be finer next year. Instead of potting them on into the larger pots the plants may be planted out of doors in beds. They will flower in late summer. No, it is not too late to sow again if your seedlings fail; but you would get few if any flowers from them this year. They ought, however, to do well next year even if sown now.

**JAPANESE DWARF TREES (Jappy).**—*Zelkova acuminata* is now regarded as the correct name of the tree usually met with as *Zelkova Keaki*. Botanically it is a near relative of the Elm, in fact one of the several names that have been applied to it is *Ulmus Keaki*. According to Professor Sargent it is, perhaps, the largest deciduous leaved tree of Japan, and is a most valuable timber tree. It is quite hardy in this country. *Cornus Kousa*, a member of the Dogwood family, attains in Japan the dimensions of a tree, but in this country it must be regarded more as a shrub. The flowers borne in terminal



heads are small and insignificant, but each cluster is surrounded by four large white petal-like bracts, thus resembling a large white flower. This, which is better known as *Benthamia japonica*, is fairly hardy here. A mixture of two parts loam to one part each of peat and sand will suit them well. They must be thoroughly watered whenever necessary. Pruning should be limited to the removal of any shoots that make an endeavour to grow out of the moribund distorted state in which the plants now are. They may be kept out of doors in summer, and wintered in a cool house, for though hardy under normal conditions, in their starved state protection from severe frost is necessary.

**PLANTS IN CONSERVATORY (J. W. B. Whetham).**—You must depend upon plants in pots or tubs. Procure some good-sized decorative plants that will be effective at all seasons, such as Palms, *Cordyline australis*, *Araucaria excelsa*, *Camellias*, *Azaleas*, &c. These can be rearranged at any time to suit your purpose, and enlivened at different seasons by a selection of the plants then in flower. Thus for the first three months of the year bulbous plants and forced hardy shrubs are available, then the usual summer-flowering subjects, and in the autumn *Liliums*, *Chrysanthemums*, *Salvias*, &c. For summer you will find it a great help if you grow on a few large plants of such subjects as *Fuchsias* and *Pelargoniums*, both zonal and Ivy-leaved. *Abutilons*, too, are of quick growth and flower freely. Fern pockets on a wall are satisfactory provided the plants therein are not allowed to suffer from want of water or atmospheric moisture, but in such a structure as yours you will find in practice that a good deal of attention in this respect will be necessary.

**WINTER-FLOWERING CARNATIONS (H. H. Fletcher).**—These plants are propagated from cuttings taken in the month of January, inserted in pots filled with sandy soil, and placed in a propagating frame. In two or three weeks' time they should be rooted, then remove them from the frame; they must then be potted off singly into small pots and gradually inured to a cooler atmosphere. They are greenhouse plants, and when established must not be given a high temperature. After the month of May they are best placed out of doors or in cold frames. They must be taken into the greenhouse again early in September, and some of them will soon begin to flower. In the early stages of growth the plants ought to be stopped, so as to make them bushy and of shapely form. Pinch out the centre when they are about 4 inches high, and if they are not sufficiently bushy they must be stopped a second time. They may be flowered well in pots of 6 inches diameter. They need repotting twice, after the first potting off from the cutting pots, the final potting being into the size named. The soil should consist of four parts fibrous loam, one of leaf-mould, and one of decayed stable manure, mixing some mortar rubbish with these ingredients.

**FLOWERS SPOILT (W. Duncan).**—The enclosed flowers have undoubtedly received some severe check, but what it is we are quite unable to say. The blooms sent look as if they had been brought on in a fairly warm and shaded structure, and were then suddenly exposed to draughts and full sunshine, which last, acting on petals that retained a certain amount of moisture, had done the mischief. As there are so many possibilities, it is quite impossible for us to be more definite in the matter.

**LEAVES UNHEALTHY (A. E. C.).**—Except on the leaves that are dead we cannot find any trace of fungus on the Ivy-leaved *Pelargoniums*, although there is a slight ailment of the leaves, a kind of eczema to which some varieties are very liable. Highly-fed plants are far more prone to this than those grown under more natural conditions. It is always worse in early spring than at any other time, and particularly so if the plants have been kept rather close during the winter. With a free circulation of air the trouble, as a rule, quickly disappears.

**CRASSULA (J. Smith).**—From your description we believe the plant to be *Crassula (Kalanchoe) coccinea*. This is a fleshy greenhouse plant, native of South Africa; it is a very ornamental plant of somewhat bizarre appearance. It may be grown in pots in a greenhouse in a soil consisting of sandy loam with which some fine brick rubbish is mixed. Make sure that the pots are well drained. When the plants are growing freely, a fair

amount of water is necessary, but when they are resting water must be given very carefully, or the plants will be lost. You may increase your plant by means of cuttings, which, before being placed in pots of sandy soil to root, should be laid in the sun to dry for two or three days.

## ROSE GARDEN.

**PRUNING CRIMSON RAMBLER (G. Randall).**—It is far better to prune *Crimson Rambler* and other rambling Roses after planting than to allow the growths to remain unpruned. You did quite right in cutting your plant back to within 1 foot of the ground, and so encouraging the production of vigorous shoots from the base for flowering another year. When your plant becomes established, the way to prune it is to cut out the growths which have flowered as soon as the flowers are over, and so allow younger shoots space and light for their proper development. It is a great mistake not to prune these strong-growing *Ramblers* when newly planted. You sacrifice flowers for the first season, certainly; but this is more than compensated for by the strong shoots which result, and which will flower splendidly the next year.

**INSECTICIDE FOR ROSES (X.).**—We have found one of the most effective insecticides to be paraffin soap, and its preparation is very simple. About 2ozs. placed in a gallon of warm water will quickly dissolve if churned for a short time. An excellent sprayer is the Abol Syringe where a moderate number of Roses are grown, but for large quantities of plants the Vermorel Knapsack Sprayer is one of the best. Where the shoots of the Roses can be immersed in a bowl of the wash the aphides are more readily dispersed.

**DOROTHY PERKINS WITH YOUNG GROWTHS INJURED (J. A. Batley).**—We could detect no disease in the shoots sent. Our opinion is that the cold winds and frosts are responsible for the crumpled foliage and peculiarly coloured bark. We find it best to prune past any forward shoots such as these, as it is usually upon the unripened growths that these early shoots appear. Try and thin out your plant of weakly and superfluous growths, so that the remainder have a better chance of ripening. These Roses, as all other climbing and rambling sorts, depend mainly upon well-ripened wood for their best display of clusters of blossom. There is no appearance of mildew, and, as you surmise, it is too early to expect this fungus outdoors at this season of the year, although under glass it is particularly rife where the sulphur vapourers are not used.

## FRUIT GARDEN.

**CANKER IN APPLE TREES (E. B. Leeds).**—The shoots of Apple trees sent are badly cankered, and such trees will be useless if the disease has attacked the whole tree. We should advise their removal. As regards its attacking other trees, so much depends on the circumstances. The pest is increased more by adverse conditions at the roots, such as lack of food. The position the trees occupy may not be congenial. We certainly should remove the trees if at all bad and replace, first ascertaining if the soil and drainage are suitable. Canker is often brought on by bad drainage and poorness of soil. The old but good Ribston Pippin Apple cankers badly in some soils, as also do King of Pippins and Cellini, and the canker may in their case arise from old age. In some cases it is due to a poor stock—the latter bears an important part in the life of the tree. We should not allow the bad trees to mix with the new, and from the pieces sent it looks as though there had been some American blight last year.

**PRAACH LEAF-CURL (Ronald Southey).**—Your trees are suffering from the leaf-curl fungus, which, when once established on the tree, cannot be eradicated except by resorting to extreme measures. You did quite right to pick off and burn all the leaves attacked, and it would be wise to cut off any shoots which are especially badly attacked. The fungus lives throughout the year in the shoots and smaller branches pushing its growth into the young leaves as they are opening. This causes an abnormal growth of tissues as seen in the leaves sent. Carefully gather and burn any diseased leaves that may have fallen. Spraying with Bordeaux mixture as the leaves are opening, and again in about three weeks' time, is useful in destroying any spores that may be carried from other trees. Cold winds such as have been prevalent of late tend to

aggravate this disease. We do not think the Apple shoot sent is suffering from mildew, which does not usually make its appearance out of doors so early in the season. It appears to us to be the natural downy covering of the shoot.

**MILDEW ON APPLES (Pot-Trees).**—If your Apple trees in pots are not very badly affected with mildew you could probably cure them by dusting with flowers of sulphur. If, however, they are badly attacked, you should spray them with sulphide of potassium, which is made by dissolving 1oz. of sulphide of potassium (liver of sulphur) in a quart of hot water and dilute it with 2½ gallons of water. Carefully gather and burn any diseased leaves that fall; it would be as well to pick off a few of the leaves which are most badly attacked and burn them.

**PRAACH LEAF CURL (Hector Macdonald).**—We have, in the case of young trees, cut away the affected parts and got clean growths that were quite free of the curl, and eventually the trees were quite clear of the pest, but in your case we fear your only remedy will be to destroy the tree, clear out the old soil, and replant. We do not think the disease will affect the other trees in the house if you cut away infested parts. There is no cure, so far as we know, once the tree is badly attacked, as the sap ceases to run and the branch dies. We find the disease affects some kinds worse than others; you should get a new tree from some distance free from disease, and you will not have any reappearance of the disease.

## KITCHEN GARDEN.

**TOMATO PLANTS FAILING (J. V. R.).**—Judging from the leaf you sent, we should say the plants have been weakened through too high a temperature and improper watering. Possibly also the soil in the pots was not made sufficiently firm at potting-time. The soil would have been better without the leaf-mould. Nothing suits the Tomato so well as good turfy loam. You had better lower the temperature of the greenhouse; in fact, the plants need no fire-heat at all now, except on cold nights to keep the temperature from falling below 50°. Especially now the plants are coming into bloom, they require plenty of air on suitable days, and every day you should endeavour to give some air; otherwise the fruits will not set. The soil must not be kept wet; wait until it appears to be getting somewhat dry before giving water. It must not, of course, be allowed to get quite dry.

**ASPARAGUS FROM SEED (J. J.).**—Asparagus may now be sown. As few seeds germinate more freely, half-an-ounce will be found sufficient to raise many hundreds of plants. In most gardens it is convenient to raise the plants in nursery beds, and transplant them to their permanent quarters the following April or when they are two years old. In either case the seed should be sown thinly in shallow drills a foot or so apart, thinning the seedlings out so that they stand from 4 inches to 6 inches in the rows, the latter distance being necessary if the plants have to remain two years before being replanted. This will allow room for the roots to develop and for the formation of strong crowns. When planting-time arrives it will be easy to disentangle the roots, and the plants receive little or no check in being lifted. Some people sow the seed where the plants are to grow.

## MISCELLANEOUS.

**TO CLEAN GLASS (Packham).**—The best thing to clean glass in the state described by you is hydrochloric acid, popularly known as spirits of salts, which can be obtained at a very cheap rate. It may be applied to the glass with an old painter's brush, or a wad of rag tied to a stick, as the acid must not be allowed to come in contact with the fingers.

**RED-LEGGED WEEVIL (Enquirer).**—The insect that you enclosed is a specimen of the red-legged weevil (*Othiorhynchus tenuirostris*). It is a decided pest in gardens. They feed on the leaves of trees, &c.—Pears, Plums, Apricots, Peaches, Nectarines, and Strawberries—and their grubs feed on the roots of Currants, Gooseberries, Raspberries, Strawberries, and probably on those of other plants. This species, like the other members of this genus, usually feeds at night, remaining hidden under stones, clods, or any shelter that it can find on the plants on which it is feeding during the day. After they have begun their depredations at night they may be caught by shaking the shoots on which they are over an open umbrella or a board or sheet of metal that has been recently painted or tarred. In the case of trees fastened to a wall a white sheet should be laid under the trees and the leaves shaken. By brushing them over with a bunch of twigs the sheet will soon show if any have fallen on to it; or they may be trapped by laying small bundles of dry moss or hay among the shoots of the trees or on the ground near the base of the stem.—G. S. S.



## THE HORTICULTURAL CLUB.

PROFESSOR FARMER, F.R.S., ON "PARASITISM."

AFTER the usual monthly dinner of this club, held at the Hotel Windsor on Tuesday, the 1st inst., under the presidency of Sir John Llewellyn, Bart., and with a very full attendance of members and guests, Professor J. B. Farmer, M.A., F.R.S., gave a most interesting address on "Parasitism" in especial connexion with the plant world, humorously opening his remarks with the reminder that we are all of us parasites on plants, in the sense that we depend directly or indirectly entirely upon them for our existence. He commenced by dividing plant parasites into two categories: Saprophytes, which feed upon vegetable matter already dead; and parasites proper, which select living hosts, whom they rob in a more or less drastic and unconscionable fashion. The familiar examples of the Dodder and the Mistletoe were quoted here, the former being much more unscrupulous than the latter, which appears to occupy a sort of intermediate position by forming a working foliage of its own and not depending entirely on the host as does the Dodder. A peculiar point in this connexion was that the more thorough the parasitic nature, the more degenerate it became, tending at last to do nothing more than reproduce itself, i.e., to become flowers and nothing else. *Rafflesia arnoldiana*, with huge earth-borne flowers a yard across, has apparently reached the climax in this respect, as it has no leaves at all, and even the roots are mere feeders and suckers upon the roots of surrounding vegetation. Despite the two distinct categories aforesaid, saprophytes and parasites proper, there is, of course, as always occurs in Nature, an intermediate grade, and in this we find instances where the organism usually destined to prey on dead matter steps as it were over the line and attacks the living in an insidious fashion by previously poisoning the adjacent tissues, and thus killing them first and feeding on them afterwards, so as it were to save its harmless saprophytic character under false pretences.

Professor Farmer then dealt with that aspect of parasitism which involves a benefit to both the parasite and the host, as we see exemplified in the bacteria of the soil, which induce the growth of nodules on the roots of many leguminous plants, and, in some peculiar way, introduce from the nitrogen in the air a considerable addition of nutritious nitrates to the soil, to the benefit of the farmer as well as the host and parasite. The next thing considered was what was the inducing cause of parasitism, and in this connexion the attractive power of sugar and malic acid was an undoubted factor, parasitic plants, like non-parasitic ones, having the faculty of following up the track of what they like. Thus in the fertilisation of ferns it is the presence of malic acid in the archegonium which determines the course of the swimming antherozoids towards it, and it is the same powerful attraction which has been inherited by flowering plants and determines the course of the pollen grain contents to the ovary. It is due to this that pollen grains germinate or gelatine. The various rusts which infect wheat and other cereals were then alluded to; and the immunity of some varieties and susceptibility to infection of others, it was suggested, might both be due to differences of a subtly chemical character attractive or unattractive, as the case might be, since it had been shown by experiment that sugar might attract and repel according to the greater or lesser amount present. The curiously intricate life-history of some of this class, involving two different alternate hosts, such as the Barberry and wheat, was entered into, as also was the destructive effect of some of the larger fungi on trees, especially conifers. In the subsequent discussion Sir George Watt gave some most interesting particulars respecting the parasites incidental to the Indian Tea plantations; and Colonel Frain, the Director of Kew Gardens, followed with some appreciative remarks on the value of Professor Farmer's observations. A very hearty vote of thanks was proposed by the president, and carried enthusiastically.

## DARLINGTON SPRING FLOWER SHOW.

THE annual spring flower show of the Darlington Horticultural Society, held in the Drill Hall recently, added one more to the successful exhibitions organised by that society. The society's silver challenge cup for the best collection of Narcissus blooms was won by Mr. E. Owen of Blackwell. Mr. E. Wood, a prominent supporter of the society, had on view, though not for competition, a pretty collection of Narcissus; and Mr. A. A. Harrow had also a non-competitive exhibit of stage and alpine Auriculas, in which were fine specimens of the green-edge variety. Through his gardener, Mr. James Backhouse of Hurworth Grange had on view a fine collection of bulbs. The trade exhibits, as usual, contributed largely to the beauty and attractiveness of the show. Messrs. Kent and Brydon, Mack and Mill, Hilliar, Spence and Son, and Gibson and Co. also sent excellent exhibits.

## SPRING FLOWER SHOW AT NORWICH.

AT St. Andrew's Hall, Norwich, on the 25th and 26th ult., the Norfolk and Norwich Horticultural Society held its annual show of spring flowers. Narcissus were the predominating feature, two stands of thirty-six varieties, three blooms of each, being the primary class. Here Mr. George Davison of Westwick House Gardens secured premier position. Mr. A. Woodhouse, gardener to Lord Justice Cosens-Hardy, Letheringsett, took second prize. This exhibitor also received a special prize for an exhibit of 100 varieties. Other smaller classes and vases brought out also some grand blooms from local growers, chief among the winners being Mr. W. Chettleburgh, gardener to Colonel Rous, Worsted; Mr. U. Wright, gardener to W. J. Birkbeck, Esq., Stratton Strawless; Mr. W. Smith,

gardener to Robert Fellowes, Esq., Shotesham Park; Mr. W. Palmer, gardener to I. B. Coakes, Esq., Thorpe; and E. J. Caley, Esq., Thorpe.

A striking feature was a collection of seedlings raised from seed saved seven years ago by Mr. George Davison at Westwick.

Plants in pots were a strong feature, the primary exhibit in this section being a charming collection of Orchids from the gardens of H. Elder Haggard, Esq., of Ditchingham Hall. Messrs. Williams, W. Chettleburgh, W. Palmer, Daniels Brothers, Limited, and Hobbies, Limited, Dereham, also staged some excellent exhibits.

## SCOTTISH HORTICULTURAL ASSOCIATION.

THE ordinary monthly meeting of the Scottish Horticultural Association was held in their hall at 5, St. Andrew Square, Edinburgh, on the evening of the 2nd inst. There was a large attendance, presided over by the president, Mr. David W. Thomson, George Street. An interesting display of exhibits was on the table, the most noticeable being a fine exhibit of a collection of Tulips, containing sixty-four varieties, shown by Mr. D. W. Thomson, and to which an award of merit was given; and *Dentasia* from Mr. Porter, Davidson's Maine, who, with other exhibitors, received a vote of thanks. The subject of the lecture was "The Auricula," which was admirably discussed in a paper by Mr. Andrew Hutton, Ussan House, Montrose. The stage Auricula formed the principal topic of a valuable paper, but the alpinas were also discussed, and excellent cultural details given. Mr. Hutton was heartily thanked for his paper.

## LATE NOTES.

**English v. French Salads.**—We have read the article on "Salads" in your issue of April 28. Our partner, Mr. C. D. McKay, is at a loss to understand why you should ignore the fact that it was due to him, and to him alone, that the growing of these early Lettuces was introduced into England. It was due to his advocacy of the fact that these Lettuces could be grown equally well in England as in France, that the idea took root, and it was our close connexion with the French trade that enabled the twenty gardeners you mention to be taken over to Paris and shown exactly how the Lettuces are grown. We did this at very considerable expense to ourselves, and also supplied part of the money towards the expense of taking over some of the gardeners. In a letter in THE GARDEN of February 9, 1906, Mr. McKay gave full particulars of the matter, and it was he who personally conducted the party to Vitry. We obtained the French gardener for Mr. Idiens, and also the bell-glasses, and gave all the information connected with it. We are only too pleased to further the growing of these early Lettuces by Englishmen, for which we at present pay such an enormous price to our friends abroad, and unnecessarily so.—WATKINS and SIMPSON, 12, Tavistock Street, Covent Garden.

**A protection against birds.**—We are all being troubled now by the birds, who help themselves to buds and seeds *ad libitum*. I have tried spraying, black cotton, clappers, tin cans, &c., with only partial success; but I have found a bird-scarer which seems to answer admirably—it is a wire frame of a moderate-sized man, with detachable arms and legs, which are movable. I put an old coat and trousers on, with a penny mask and old hat; it costs about 7s. 6d., and lasts for ever. It can be moved without trouble from place to place, for it is very light, so that the birds do not get accustomed to it. It will be most useful all through the summer, too, to protect the fruit. I have two. They can be obtained

from Messrs. T. W. Palmer and Co., 5, Victoria Street, Westminster.—H. W. P.

**Midland Daffodil Society.**—In referring to the exhibit of *Hippeastrums* sent to the Midland Daffodil Society's recent show from the Labelliflor Nurseries, Voorschoten, Holland, we omitted to mention the fact that a silver medal was awarded.

**A horticultural exhibition** is to be held in connexion with the Royal Counties Agricultural Society's show at North End, Portsmouth, on June 12, 13, 14, and 15. The hon. secretaries are Mr. A. W. White and Mr. Ernest Hall. Mr. C. S. Fudge, secretary of the Southampton Royal Horticultural Society, is the superintendent of the horticultural section, to whom all enquiries should be addressed, 6, College Terrace, Southampton.

## IN THE CAUSE OF CHARITY.

## PERFORMANCE OF "AT PUDDLETON QUAY."

A MERRY evening was spent on Thursday, the 3rd inst., when Mr. Edward Sherwood presented the musical play "At Puddleton Quay," written and composed by himself, with the exception of the lyrics, which were by Mr. Robert Main. The Cripplegate Theatre, in which the performance was given, was crowded, and it is to be hoped a substantial sum will be realised for the benefit of the Gardeners' Royal and Corn Exchange Benevolent Institutions, to which the proceeds will be given. The performers played their respective parts with considerable merit, and it is interesting to know that all are in the firm of Messrs. Hurst and Son. Mr. Sherwood conducted the orchestra of the Hurst and Son Musical Society, and the play was tastefully and prettily mounted. The music is a distinct advance upon the first musical play by Mr. Sherwood, "In Cyderland," and many of the numbers revealed true musical ability. The dainty little song "A Simple Maid," the duet "The Thistle and the Butterfly," and the stirring "Hanson Cab" song with chorus deserve special mention among many excellent numbers. The story was told round the history of a miniature, and we wish space would allow of a detailed description. All we can say is that these efforts of Mr. Sherwood to help forward the well-known charities are deserving of all praise, and a hearty reception was given to the part-author and composer at the end of the performance. The chief honours of the evening fell to Mr. Dixon, as Jem Gordon; Mr. E. Carey Tucker, as George Yarnwell; Mr. F. A. Washington, as Dicks; Mr. Main, as Joseph Goodenough; and Miss Ethel Hawes, as Kitty Pembury.

## TRADE NOTE.

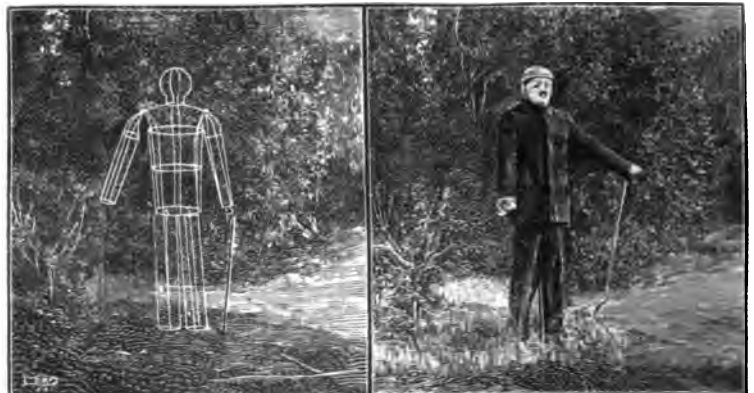
## DAHLIAS, CARNATIONS, AND CHRYSANTHEMUMS.

THE catalogue of Dahlias, Carnations, early Chrysanthemums, climbing plants, and hardy Nymphs, published by Messrs. Pennell and Sons, Lincoln, is well worth perusal by those interested in these plants to which the garden owes much of its late summer and autumn beauty. Bedding Begonias, Lilies, and many other useful plants are described and illustrated in this catalogue, which may be had from Messrs. Pennell and Sons, Lincoln. It is most beautifully illustrated.

## GARDENING APPOINTMENT.

MR. E. C. POOLLEY, for the past eight years one of Mr. Wythe's principal assistants at 8yon House Gardens, Brentford, and of later years first foreman, having the oversight of the grounds and kitchen garden, as head gardener to Charles Bewes, Esq., Gnaton Hall, Yealampton, Plymouth.

\* \* The Yearly Subscription to THE GARDEN is: *Inland*, 2s. 6d.; *Foreign*, 3s. 6d.



AN EXCELLENT BIRD SCARER.

# THE GARDEN.

No. 1800.—VOL. LXIX.

MAY 19, 1906.

## HOW TO CROP A SMALL KITCHEN GARDEN PROFITABLY.

### PREPARING THE LAND.

**N**OVEMBER and December are the best months for this purpose, and the work should be carried out with due reference to the weather. On frosty days the manure required for use may be wheeled on to the land, which should be deeply dug or trenched. If the land be laid up in ridges to remain during the winter, the soil becomes thoroughly friable.

### ROTATION OF CROPS.

This is a most important matter for consideration, and a proper system of rotation in cropping should be strictly carried out. Never allow the same kind of vegetable to occupy the same piece of ground two years in succession, except in such cases as Asparagus, Rhubarb, Seakale, &c., which occupy the ground for several seasons. Although the same plot may produce for several years in succession good crops of the same kind, such as Onions for instance, by being well and judiciously manured, yet it is not by any means a good practice. In the end the land would become so exhausted that no system of manuring would again fit it for a similar crop until a rigid system of rotation had been practised. Crops, such as Cabbages and Potatoes, which are of an exhaustive nature, should be relegated to different soil each year. Tap-rooted plants should be succeeded by those having fibrous roots; thus Beet, Carrots, and Parsnips may be followed by the Cabbage tribe, which may also succeed Beans and Peas.

A systematic arrangement of rotation may be easily carried out by making a plan of the garden, dividing it into plots as follows:

- (1) Potatoes, Onions, Leeks, and Celery.
- (2) Beans, Peas, and other quick-growing crops, followed by Cabbage and Turnips.
- (3) Beet, Carrots, and Parsnips, or other tap-rooted plants.
- (4) Asparagus, Seakale, Rhubarb, &c.
- (5) Melon frames, Cucumber frames, and herb beds.

This shows how the garden is cropped the first year. In the following year No. 1 is cropped as No. 2; No. 2 as No. 3; No. 3 as No. 1; and so on, year by year, each crop being located in a different plot annually.

### SOWING AND PLANTING.

Where the land has been trenched and left in ridges as previously recommended, the great advantage of the ridging as compared with level digging will now be

apparent by the ease with which the soil is levelled in a friable state, enabling the sowings to be made when the weather is favourable. Had the soil been dug in the ordinary way, it would retain wet and remain for a much longer time in a state quite unfit for proper working. In sowing and planting the variations of soil, climate, and situation require to be judiciously studied; while the time when the different kinds of vegetables may, as a rule, be expected to be in season also demands attention. Approximately, the times here set down may, to a great extent, be relied upon.

Time to Sow or Plant.	Time when in Season.
<b>January.</b>	
Beans, Broad (early) .. ..	June, July
Parsnip .. ..	" to November
Shallots (bulbs) .. ..	" July
<b>February.</b>	
Asparagus (roots planted in prepared ground) .. ..	3rd year, April to June
Beans, Broad (early) .. ..	June, July
Shallots (bulbs) .. ..	" "
<b>March.</b>	
Asparagus, as above .. ..	As above
Beans, Broad, as above	"
Borecole or Kale .. ..	September to March
Broccoli .. ..	Autumn, and Mar. to Apr.
Brussels Sprouts .. ..	October, winter
Cabbage, Savoy .. ..	August to October
Carrots (early) .. ..	July, August
" (late) .. ..	September, winter
Onions .. ..	August, September
Parsley .. ..	June, autumn
Parsnip (see January) .. ..	July to November
Peas (early) .. ..	June, July
" (late) .. ..	August, September
Potatoes (early) .. ..	June, autumn
Rhubarb (planting roots) .. ..	April to June, years following
Slisly .. ..	October to February
Turnips (early) .. ..	May, June
<b>April.</b>	
Cabbages (early) .. ..	July, August
" (late) .. ..	September to November
" (red pickling) .. ..	August to November
Celery .. ..	September, October
Lettuces, Cabbage (summer) .. ..	End of June to September
Cos .. ..	July, August
Peas (for succession) .. ..	" to September
Potatoes .. ..	" October
Radish .. ..	May, June
Seakale (seeds) .. ..	3rd or 4th year
" (planting roots) .. ..	2nd or 3rd "
Tomato .. ..	August, September
Vegetable Marrow .. ..	July to September
<b>May.</b>	
Beans, Dwarf .. ..	July, August
" Runner .. ..	"
Beet .. ..	September, winter
Caulliflowers Autumn Giant .. ..	November
Celery .. ..	Winter
Leek .. ..	" to spring
Parsley .. ..	August to December
Radish .. ..	June, July
<b>June.</b>	
Broccoli .. ..	Year following, Mar., Apr.
Cabbages, Savoy (late) .. ..	November, winter
Celery .. ..	October
Peas (early) .. ..	September, October
<b>July.</b>	
Broccoli, sprouting .. ..	March, April
Peas (earliest, beginning of month) .. ..	October, November
<b>August.</b>	
Cabbage Eilam's Early .. ..	Year following, Ap. to July
Caulliflowers (early) .. ..	" " May
" (late) .. ..	" " May, June
Lettuces, winter .. ..	" " Mar., Apr.

### Time to Sow or Plant.

Time to Sow or Plant.	Time when in Season.
<b>September.</b>	
Cabbage Enfield Market .. ..	Year following, July, Aug.
Leek .. ..	May, June
Turnips (early) .. ..	November
<b>October.</b>	
Rhubarb (plants) .. ..	2nd spring
<b>November.</b>	
Beans, Broad (in sheltered border) .. ..	June, July
Caulliflowers .. ..	" "
<b>December.</b>	
Beans, Broad (see November) .. ..	" "

### THINNING.

Mistakes are often made in sowing seeds too thickly. In many cases this means not only a waste of seed, but it entails considerable labour in thinning out sufficiently to allow the requisite amount of space to the plants. In this respect no hard-and-fast rule can be made, but due allowance must be made for vigour of growth and difference in height, as well as hardiness and general constitution. In the process of thinning out, therefore, let it be done not too rigorously so as to sacrifice a portion of the crop, but so generously that the plants may derive to the fullest extent the benefits arising from the action of the sun and air.

When the plants are established in their permanent quarters the hoe should be kept constantly at work and all weeds eradicated, and on no account be allowed to run to seed.

### NAMES OF THE BEST SORTS OF VEGETABLES.

**Asparagus.**—Conover's Colossal.  
**Beans.**—Broad: Green Windsor, Green Longpod, Sutton's Giant Windsor, and Leviathan. **Runner:** The Bear (white) and No Plus Ultra. **Dwarf:** Canadian Wonder.  
**Beet.**—Cheltenham Green Top and Nutting's Red.  
**Brussels Sprouts.**—Algarth and The Wroxtou.  
**Borecole.**—Dwarf Green Card.  
**Broccoli.**—Veltch's Self-protecting Autumn, Purple Sprouting, and Latest of All.  
**Cabbages.**—Eilam's Early, Enfield Market, Flower of Spring, and Wheeler's Imperial. **Savoy:** Dwarf Green Curled and Drumhead.  
**Carrot.**—Early Nantes and James's Intermediate.  
**Caulliflower.**—Early London and Veltch's Autumn Giant.  
**Celery.**—Wright's Giant Red; and white, Standard Bearer.  
**Leek.**—Musselburgh and Lyon.  
**Lettuce.**—Cabbage: Tom Thumb and Wonderful. **Cos:** Giant White and Hardy Winter White.  
**Onion.**—Cranston's Excelior and Rousham Park.  
**Parsnip.**—Hollow Crowned and Student.  
**Peas.**—Earliest: Daisy, Gradus, and Thomas Laxton. Second early: Duke of Albany, Gladstone, Sharpe's Queen, and The Bell. Late: Autocrat and Latest of All.  
**Potatoes.**—First early: Duke of York, Sharpe's Victor, and Epilour. Second early: Sir John Llewellyn, British Queen, and Windsor Castle. Main crop: Factor, Duchess of Cornwall, Up-to-Date, Warrior, and Discovery.  
**Rhubarb.**—Champagne, Victoria, and Prince Albert.  
**Tomato.**—Laxton's Open Air and Perfection.  
**Turnip.**—Early Milan, Orange Jelly, and Six Weeks.  
**Vegetable Marrow.**—Hibberd's Prolific, Moore's Vegetable Cream, and Pen-y-byd.  
**Radish.**—Wood's Early Frame, Scarlet Olive, and French Breakfast.  
**Spinach.**—Victoria Improved and Monstrous Viroflay.

### CUCUMBERS AND MELONS IN COLD FRAMES.

The frames should face the south. The Cucumber plants should, if possible, be obtained of a size fit to plant out early in May; otherwise, about the middle of April, throw into one corner of the pit two or three



barrow-loads of manure, which should be partly decomposed; then sow in a pot, half filled with light, rich soil, the required number of seeds, covering them lightly, and place over the mouth of the pot a piece of glass, setting the pot upon the manure. When the plants are throwing up the first rough leaf, they may be potted off, putting them back on the manure and keeping the lights close for a day or two. As soon as they have made the first rough leaf, stop them by pinching off their top close to that leaf, and prepare for planting them out in a few days after by laying some long litter or turfy soil, about 3 inches thick, as drainage; then, along the centre of the pit, form a ridge of rich, light soil 1 foot thick, and plant a pot of plants under each light.

The reason for first forming a ridge of soil along the centre is to allow frequent earthings to the plants as their roots appear on the surface, by which means they grow faster than when planted at first in a large body of soil. All that will be wanted after, besides these earthings, is a regular supply of air, taking off the lights wholly the greater part of the day after the end of May, the stopping and training a certain number of bearing shoots, and pegging them out so as not to be crowded. Male flowers and leaves, when too numerous, must be thinned, and regular supplies of soft water and liquid manure given to the plants. By these means plenty of Cucumbers may be had until late in the season. The best varieties for this purpose are Telegraph, Lockie's Perfection, Rochford's Market, and Tender and True.

#### MELONS.

These may be cultivated in the same way. They like the sun; therefore the frame should be placed in a sunny position, and will never require to be in any way shaded. The female flowers should be fertilised by hand when the air is dry and the male flowers pinched off. The best Melons for this kind of culture are The Bathurst, Duchess of York, Blenheim Orange, Hero of Lockinge, and Munro's Little Heath. The first-named is of hardy constitution, with free setting habit, the flavour and aroma being equal to the best variety grown under the most favourable conditions. W. H. MORTON.

*St. James's Crescent, Gloucester.*

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

- May 23.—York Florists' Show.
- May 29.—Royal Horticultural Society's Show in the Temple Gardens (three days).
- May 31.—Bath and Western Counties' Show (five days).

**Royal Gardeners' Orphan Fund.** The annual dinner of this institution was held at the Hotel Cecil on Thursday evening, the 10th inst., J. Gurney Fowler, Esq., treasurer of the Royal Horticultural Society, presiding. The secretary announced that the occasion was unique in the history of the society, for there was a record attendance and a record subscription list, the latter amounting to more than £1,000. A full report of the proceedings appears on another page.

**The National Tulip Society (Southern Section),** following the initiative of other horticultural societies, have this year extended their schedule to Tulip growers of other than the florist's kinds. At the thirteenth annual southern show, to be held in the Royal

Botanic Gardens, Regent's Park, on the 23rd inst., they are offering prizes for Darwin and garden Tulips, to be shown in vases; also for a group of any variety arranged for effect. The gold and silver medals of the Royal Botanic Society will be awarded for the best trade exhibits. It is hoped that this arrangement will have the effect of bringing together all lovers of the genus Tulipa, and that amateurs and the trade also may combine for its success.

**Parasitic growths.**—Professor Farmer, F.R.S., is very anxious to obtain specimens of parasitic growths, as this is a subject in which he is specially interested. They should be forwarded to Claremont House, Wimbledon Common, Surrey.

**Cactus Dahlia The Pilot.**—This beautiful new Cactus Dahlia, raised and sent out by Hobbies, Limited, Dereham, was the subject of the coloured plate in THE GARDEN last week. The Pilot is probably the finest of its shade of colour among Cactus Dahlias. It was splendidly shown by Hobbies, Limited, at the National Dahlia Society's exhibition in September last, and then received a first-class certificate. It should be in the collection of everyone who grows Dahlias. As the coloured plate shows, the colouring of this variety is very striking; it is best described as apricot with a reddish tinge. We can imagine nothing more showy among Dahlias than a group of The Pilot.

**Apple Hanwell Souring.**—It may interest some of your readers to know that Apple Hanwell Souring, recommended by your correspondent in THE GARDEN recently as (in his experience) the best late Apple, is catalogued by Messrs. Smith of Worcester, though, as your correspondent also says, it is not to be found mentioned in most lists. Messrs. Smith do not make claims for it similar to those of your correspondent, so perhaps his is an exceptional case. It would be interesting to hear what Messrs. Smith or other growers have to say about it. An Apple like that is worth knowing when Rhubarb is objectionable.—H. L. SHEPHERD.

Apple Hanwell Souring is said to have been raised at Hanwell, near Banbury, many years ago. It is an excellent culinary Apple of first-rate quality, of a firm, crisp, white flesh, with a brisk acid flavour; in use in December and keeps till March, when it possesses more acidity than any other variety which keeps to so late a period.—RICHARD SMITH AND CO.

#### Is a sprouting Broccoli a green?

This question came before the members of the Royal Horticultural Society's fruit and vegetable committee at their last meeting, and it was asked by an exhibitor who had shown this vegetable in a class for greens and had been disqualified. The term greens as applied to vegetables is undoubtedly vague, and is calculated to mystify the uninitiated in vegetable lore, and also the framers of flower show schedules, as well as many exhibitors. They may well be pardoned if they are sometimes in doubt as to what to include, and what to exclude, in and from this class. There is no authoritative rule governing this question that I am aware of, but long-established custom in gardens carries with it a certain measure of authority, which is generally accepted as settling this point. For vegetables erroneously grouped as greens the term Borecole should be used instead, and especially so in flower show schedules where this class of vegetable is provided for. The vegetables included under this heading of Borecole are fairly well defined, and are the same as those more generally represented by the term greens. They include the tall and dwarf curly green, the Scotch, Cottage, Asparagus, Imperial Hearting, and Ragged Jack Kale; indeed, all the Kale section (except, of course, Seakale). On the other hand, the Brassica tribe, which produce distinctive heads of growth, such as the Cabbage, the Colewort, Savoy, Brussels Sprouts, Cauliflower, Broccoli, and the sprouting Broccoli, are not

termed greens, but are identified under their own distinctive names. Yet many of these, such as the Cabbage, Brussels Sprouts, and the sprouting Broccoli, will produce what may be legitimately termed greens as a result of second growth in spring and summer, but their first crop may not be so designated.—OWEN THOMAS.

**Value of Rhubarb leaves.**—I had missed seeing the paragraph in THE GARDEN advising Rhubarb leaves to be used as Spinach, but some friends recommending it, I had some cooked. I was very ill all night, and was told the next morning the cook had been the same, she being the only servant who had eaten it. She told me the leaves had a very disagreeable pungent smell while being cooked, which had quite upset her; but in spite of this she had eaten it when dressed as Spinach, and had thought it as pleasant as I had.—A., Cumberland.

**Successful Amaryllis culture.**—Mr. S. A. Cheffins sends from Catmos Gardens, Oakham, a photograph of an Amaryllis growing in an 8-inch pot. It was originally one bulb but now has three small ones growing round the base of the old bulb, one of which has this year sent up a spike of flowers along with the main bulb which has two spikes; the number of individual flowers on the three spikes is fifteen. Our correspondent says: "This looked very fine as a decorative plant, and was used as such for some considerable time. Our mode of cultivating the Amaryllis is to soak it in liquid manure from a farmyard tank. We place 6 inches or so (according to size of pot to be plunged) of this liquid into a tank or water-cart, and plunge the pots in this. They remain in it six or eight hours, when they are lifted out and allowed to drain. After this they are top-dressed with a rich compost of loam and leaf-soil, with a sprinkling of soot, artificial manure, burnt earth, and silver sand, pricking off as much of the old soil as can be conveniently done without injuring the main mass of roots. They are then placed in a warm house with a night temperature of not less than 60°. They require very little water until they begin to grow, when they must not be neglected in this respect. Ours are fed with liquid manure twice a week after the flowering is over, and should any of the plants require a larger pot, then is the time to give it."

**Recent plant portraits.**—The *Botanical Magazine* for May contains portraits of *Lilium Duchartrei*, native of Western and Central China. This is a very beautiful Lily, and is one of the thirty-two species of that family which are indigenous to China. It was first discovered in 1869 by the French missionary Abbé David, and more recently by Mr. E. H. Wilson, who sent it to Messrs. Veitch. *Primula cockburniana*.—Native of China. This is a most distinct and beautiful Primrose quite unlike any other member of the family. It produces slender flower-stems, with whorls of small orange flowers. It at present lacks vigour of constitution, but may improve in this respect under cultivation. This is another of the valuable discoveries of Mr. Wilson, who sent seed to Messrs. Veitch. *Listrotaechys Hamata*.—Native of tropical West Africa. This is a curious Orchid, with pure white flowers and green tails, like those on some Balsam flowers in shape. The flowers resemble somewhat in form those of a small *Angraecum*, but are of more botanical than horticultural interest. This species came to Kew from Lagos in 1899, and flowered in 1900 in a tropical house. *Genista dalmatica*.—From the North-Western Balkan Peninsula. This is an exceedingly bright and pretty little Broom, which forms part of the evergreen underwood of Pine forests of Dalmatia and the Illyrian Islands. It blooms in June and July. *Euphorbia Lophogona*.—Native of Madagascar. This is a quaint and curious species with small bluish pink flowers, which appear annually in the succulent house at Kew. The second number of the *Revue Horticole* for April figures three fine varieties of double-

flowered tuberous *Begonia* raised by Messrs. Ware at their Bexley Heath nursery. They are described by the leading French amateur grower, M. Jarry Desloges, who admits that, though the double *Begonia* originated in France with M. Lemoine of Nancy, the distinct superiority in size of flower, duplication and upright habit of growth of the flowers raised by the chief English growers has obliged the French raisers to take a second place. The finest of the three varieties here figured is *Queen Alexandra*, which is really a grand flower, with a pure white ground and deep red Picotee edge to every petal. It is, however, unfortunately, of rather a pendulous habit of growth. The first number of the same periodical for May figures *Nicandra violacea*, a very interesting and beautiful annual Solanaceous plant with large violet flowers. It came from a chance seed in the Botanic Garden at Tours in 1900, and is quite distinct from and much handsomer than the only known other member of this genus, *N. physaloides*.—W. E. GUMBLSTON.

**Fruit prospects.**—If in every direction these be as they are just now in parts north of London, then they are bad indeed. Not only has expanded Plum and Pear bloom been destroyed wholesale, but Apple bloom-buds, quite small and far from being open, show when divided to have blackened centres. It is the same with such Strawberry bloom-buds as are above the crowns of the plants; indeed, it seems as if all early blooms were destroyed. Even buds on Raspberry shoots, still hardly visible, were found to have blackened centres also. Such a long spell of sharp frosts in April as has marked the present season seems to have been almost unparalleled. Rarely has there been a worse outlook than the present time affords. It is, indeed, most deplorable and disheartening. What the usual July census will reveal can hardly be doubted. It is, indeed, to be hoped that some districts have escaped, also that some of the very latest bloom in the home districts may yet prove to be fertile.—D.

**Three interesting Lilies at Kew.** Although most of the Lilies are hardy, they form excellent subjects for pots in the greenhouse. Three interesting species are at present flowering in No. 4 Greenhouse at Kew. *L. parvum* (the small-flowered Rocky Mountain Lily).—This is a native of the Sierra Nevada and other ranges in the Pacific States of North America, and is found at from 4,000 feet to 8,000 feet elevation. There it is said to grow 5 feet or more in height, but under cultivation 1 foot to 2 feet is about the average. The first to describe the plant was Dr. Kellogg of San Francisco in 1868. It seems to have been introduced to this country a year or two later. The stem is slender, the flowers are orange red, paler towards the centre, and spotted with brown. It flowers in June outside, and resents disturbance at the root. *L. sutchuenense*.—This Lily first flowered in this country at Kew in 1899. It is still rather rare, but Messrs. Veitch, through their collector Mr. E. H. Wilson, have recently imported a quantity of bulbs from China. The flower resembles a small *L. tigrinum*. There is considerable variation in the size of the plants and the number of flowers borne by each. The plants in this greenhouse vary from 2 feet to 6 feet in height, bearing from six to twenty-five flowers. It is a free grower, and promises to become very popular; it flowers earlier than *L. tigrinum*. *L. tenuifolium*.—This elegant little Lily is a native of Siberia; it grows from 1 foot to 2 feet in height. The flowers are deep orange red, with one or more on a stem. The narrow leaves are closely arranged on the slender stems. It is readily increased from seeds, and flowers in about three years, rarely the second year. Grown three bulbs in a 5-inch or 6-inch pot, they are very beautiful.—A. O.

**Pampas Grass in a London garden.**—The accompanying illustration shows what I think is a very fine specimen of this noble

ornamental grass, considering it was grown in a London suburban garden. It was planted by me late in the autumn of 1902 in a circular bed at the end of my lawn. The position is an open one, and in the following autumn it had eight spikes of bloom. In 1904 there were twelve, but last season it quite eclipsed its previous efforts, for it bore no fewer than twenty-five. The photograph was taken just a little before it reached its best, but when fully out its silvery feathery spikes were much admired, and its height was a matter of some speculation. We found upon measuring it that it was just 10 feet 2 inches at the highest point.—C. H. PAYNE.

## THE ROSE GARDEN.

### SEASONABLE NOTES.

**P**ROBABLY few can recall a more unpleasant spring than the one we are passing through, and it must leave its mark upon our Rose plants.

Those who pruned somewhat late, and also who were not afraid to cut back hard, will be the best off this year. It is a remarkable recommendation to the *Wichuraiana* Roses that in spite of the weather the young growths appear to have come out unscathed. With stocks budded last summer those on the *Manetti* show the effect of the frost most, and one must pinch back the new growth beyond the frozen part. The plants will break again from the base, and will, perhaps, make better specimens by the autumn. All young growths upon both

**Budded DWARFS AND STANDARDS** should be tied to a support as soon as sufficiently long. Sometimes a strong wind will work havoc if the plants are not carefully tied, and one's labour in budding will be lost. The buds of Tea Roses often remain dormant for some time, so that they should not be hastily discarded.

**THE HOE** should be kept frequently at work both among these young buds and also established plants. A hard, crusty surface is quite against good cultivation, and this will not occur if the hoe is used diligently. To the established Roses a sprinkling of some good artificial manure may be given if we have reason to think the plants require it, and liquid manure may also be given to the strong vigorous plants on walls, arches, and pillars, also to the strong, healthy bush and standard plants. Kainit, blood manure, and bone-meal in equal parts make an excellent artificial manure. If 1 cwt. of each is mixed together with three or four barrowfuls of rather dry potting soil, and kept in a dry shed for a day or two, this can be applied to the beds in a fairly liberal dressing, and may be repeated again after an interval of about four weeks.

**THE SHOOTS OF TEA ROSES** will need severe thinning if quality of bloom is desired. Varieties such as *Cleopatra* will send out new shoots all along the first growths long before the buds attain any size, and these lateral shoots must be

suppressed, so that the strength can go to the buds.

**SUCKERS** should be hunted for and kept in subjection, and also the various insect pests. The maggot promises to be very abundant again, and nothing can take the place of hand-picking. The plants should be gone over two or three times a day.

**UNDER GLASS** the climbing Roses will be finishing their blooming, and the old wood should be gradually removed in order to induce a good vigorous new growth during the summer. Plenty of heat and moisture with liquid manure at the root will promote growth. Where the back walls and front part of the roof of the Rose house or greenhouse can take one or two Roses, plant the dwarf growing in preference to the climbing sorts. It is marvellous what growth such sorts as *Bridesmaid*, *Perle des Jardins*, *Mme. Lambard*, *Mme. Abel Chatenay*, &c., will make, when given room to grow away unhindered, and they afford three or four crops



THE PAMPAS GRASS WITH PLUMES OVER 10 FEET HIGH IN A LONDON GARDEN.

of blossom against the one crop of the climbers. All who force roses extensively should procure a quantity of Richmond. It seems to be a stronger and brighter form of Liberty. *Grüss an Sangerhausen*, *Warrior*, and *General McArthur* are also splendid high coloured roses to plant out under glass or to force in pots.

**RAMBLER ROSES IN POTS** are forming their beautiful sprays of bloom and will need careful attention. As they are grown in rather small pots the plants need water two or three times a day, when the sun is bright, and liquid manure about twice a week. If the plants should once become dry the buds soon show the result by turning prematurely yellow and falling off.

TEA AND HYBRID TEA ROSES should now be potted on from 4½-inch into 8½-inch pots if they are required for next winter's forcing. A good compost is three parts loam, one part well decayed manure, a little silver sand, and about a 6-inch pot of ½-inch bones to a barrow full of soil. P.

### STANDARD ROSES.

IN reply to the query of your correspondent "M. T." in THE GARDEN of the 21st ult., re standard Roses, I have found the following excellent for the purpose of making a show in a windy spot: Mme. Laurette Messimy, Mme. Faloot, Safrano, Mme. Pernet-Ducher, and Clara Watson.

Tunbridge Wells.

M. S. NIX.

## THE FLOWER GARDEN.

### THE MARSH MARIGOLDS (CALTHA).

**M**OST of the members of this small family of plants greatly resemble one another in habit and flowers. They are spread all over the north temperate regions, usually growing in damp meadows and waterside places. In our native Marsh Marigold we possess one of the brightest and best of early-flowering bog plants, and those who are considering the formation of a bog garden will do well to make free use of this when planting. Its favourite position, where it grows most luxuriantly and produces the largest flowers, is in valley bottoms of black muddy soil on the edges of streams or often partly submerged. Under these conditions the golden yellow flowers are particularly attractive, and fully justify a prominent position in the bog garden. Calthas should also be employed in beautifying the edges of lakes and other ornamental waters by being planted in large groups. Once established, the plants increase freely by means of self-sown seeds, which germinate readily. Plants may also be increased by division of the root in autumn or spring. There are now six recognised species in cultivation, which are given below in alphabetical order.

*C. biflora* is a small-growing plant only about 3 inches high, with reniform leaves and white flowers, produced generally in pairs on a short scape. This choice little bog plant comes from North-western America, and, although it has

been in cultivation for nearly a century, it is still rare in gardens. The flowers are about 1 inch in diameter, with broad petals, and open in April.

*C. elata*.—This is a tall-growing plant found in the Himalayas. Seeds were first received at Kew in 1800 from Saharunpur Botanic Garden under the name of *Caltha* sp. When it flowered in the rock garden in June, 1904, it turned out to be a most distinct plant, and was described as a new species under the name of *C. elata*. It reaches a height of 2½ feet, with leafy branching stems and golden yellow flowers rather smaller than in our native plant. A distinct character is found in the round petioles of the leaves, while the orange-coloured filaments and black anthers are a pleasing feature of the flower.

*C. leptosepala* is a native of the Rocky Mountains of North-western America. It grows about 9 inches high, with somewhat oblong, radical leaves and leafless scapes, bearing a solitary pure white flower in May or June. It thrives well on the edges of the bog garden among smaller-growing plants.

*C. palustris*.—Of this plant there are many varieties, including var. *alba*, with pale flowers; var. *flore-pleno*, with double flowers; var. *minor*, a miniature form only about 3 inches high; var. *monstrosa plena*, with very large double flowers; var. *pallida plena*, with pale double flowers; and var. *parnassifolia*, a North American form, with broadly reniform leaves, and yellow flowers on stems about 4 inches high. The most effective, however, for general purposes is our native plant, with its large golden yellow flowers.

*C. polypetala*.—The subject of the illustration is a native of the Caucasus and Asia Minor. It was first found by Dr. Radde at an elevation of 6,000 feet to 9,000 feet in the Caucasus on the Turkish frontier. He sent seeds to the St. Petersburg Botanic Garden, from which plants were raised and flowered in 1894. It was figured the same year in Regel's "Gartenflora," t. 806, under its present inappropriate name; but there the figure shows the flowers with eight petals or sepals, while in cultivation here it only produces the normal number of five, with occasionally six. It is a very robust plant, growing about 2 feet high, with handsome rich yellow flowers nearly 3 inches across. Under favourable conditions the leaves attain to a large size, approaching 1 foot in diameter. Spreading rapidly by means of arching stolons, which root at the nodes, it will soon cover a large space. When growing side by side with our native *C. palustris* it is at once recognised as a most distinct plant.

*C. radicans* is a rare Scotch plant, found on the moors in Forfarshire at an elevation of 2,000 feet. It is procumbent in habit, only a few inches high, with small bright yellow flowers.

W. I.

### DOUBLE VIOLETS AND THEIR TREATMENT.

If there is a right time to make a start with these, the sweetest of flowers, it would be during the spring months. It is generally possible to find a frame in autumn to accommodate the plants for winter. Their culture is very simple when one knows how to go about it. The professional gardener has often to grow them for button-holes, but I see no reason why they should be so neglected by those who garden for themselves. Success depends largely on one or two points, and that is the spring and autumn treatment.

Where old plants that have done duty can be obtained at this time they should be divided, not necessarily to single crowns, unless quantity is the object. Previous to planting out, select a piece of ground not exposed to too much sun, that has been dug and manured. Break this down and plant in rows 1 foot apart, and the same from plant to plant. Then give a good watering to settle the soil about the plants.

The plants will not start at once, but as the weather becomes more genial they will grow freely and throw out runners, which should be picked off. Keep the hoe going freely, and give water in dry weather, with manure water occasionally. The plants derive benefit from daily syringing on hot days, refreshing the plants and keeping down red spider.

Towards the end of September a frame should be prepared in the sunniest place. If some short manure and leaves are at hand raise the frame on this to the height of 1 foot, so that more air can be obtained. Place some light soil in the frame, bringing it to within 6 inches of the top. Lift the plants with a fork to retain all the roots possible, and keep a ball to each plant. They should be 6 inches apart all ways, and almost touch the glass when finished. Give a good watering to settle the soil, leaving the lights off if the weather is favourable, but as the nights and days get colder they must be protected, covering the lights with mats in frosty weather. Keep all the decayed foliage picked off, and the soil lightly pointed over at intervals. This, with plenty of air—avoid cutting winds—will secure healthy, free-flowering plants. Marie Louise is the best sort to grow; it is strong in growth, and very free-flowering. If a double white is required, Comte de Brazza may be grown.

G. WALLER.

Cock Crow Hill, Ditton Hill, Surbiton.

### RARE BEDDING-OUT EFFECTS.

WHEN May brings its fascinating work of bedding-out, the gardener, professional or amateur, should aim at the creation of some uncommon effects; if these prove to be beautiful as well as rare his artistic reputation will be made, and he may spend summer and autumn in the enjoyment of his triumph. The loveliest flower-beds are not always the most costly, although sometimes a success is attained by growing some grand variety of plant. As an illustration of the simple, yet novel and charming combination, let groups or clumps of the old-fashioned *Linum grandiflorum rubrum* be set, at intervals of 1 foot, all over a bed of white *Violas*. This must be in full sunshine. The grace and rich colour of the *Linum* will be shown up perfectly by the *Violas*, which must be of the best dwarf-tufted habit.

An example of a bed made notable by the use of a perfect variety of bedding-plant is one in which the chief space is given up to the double Ivy-leaved *Pelargonium His Majesty the King*; the colour of this flower is a deep cerise, the trusses, numerous though they are, are simply enormous. The most harmonious colour for edging



THE MARSH MARIGOLD BY POND SIDE AT THE WOODLANDS, HARROW WEALD.



round this is cream, so cream Phlox Drummondii may be well employed, and a Palm makes a good centre-piece.

The value of the hardy annual *Erysimum peroffkianum* as a bedding plant does not seem to be generally known; it grows more than 1 foot high, and yields a mass of brilliant orange-blossom. There are two ways especially in which I like to use it: first, merely with crimson Iresine and Beet, which admirably warms up the neighbourhood of a cold-looking white or grey house; and secondly, as a bizarre colour show, with royal blue tall Cornflowers and Lobelia to match. If the Lobelia is set as a close carpet all over the bed, between groups of the *Erysimum*, the effect will be far more uncommon than if it is used as an edging. A lovely bed may be made of French Marigolds, then taller orange African Marigolds, with a large centre mass of *Hyacinthus candicans*. When this *Hyacinthus* is not possible something of the same effect can be gained by the use of *Nicotiana sylvestris*. This Tobacco plant is a taller grower than *Nicotiana affinis*—which is so much better known—has fine foliage and tubular white flowers, set in spikes, that are open all the daytime.

A bed of vermillion Lilipt Begonias will attract attention because of their small stature and profuse bloom; in between them, here and there, may well rise white Iceland Poppies, which are so elegant of growth, or else plants of white *Gypsophila elegans* may be employed instead.

Seldom is *Pyrethrum aureum* used as an entire carpet for a bed, yet it makes a good one. The variety *Pyrethrum parthenifolium aureum* Golden Curled, is exceedingly charming, the leaves being Parsley-like, but of vivid gold. A bed of this, interspersed with deep violet-blue *Salpiglossis*, gives quite a regal effect of colour. Another pretty combination would be *Heliotrope* set at intervals.

The Cactus zonal *Pelargonium*, named Fire Dragon, is certain to attract much notice, being utterly unlike all other *Geraniums*. The colour is a crimson-scarlet, but the novelty lies in the shape of the petals, which are much divided and twist up as do those of Cactus Dahlias.

There is a *Viola*, of a pink shade, that is often grown as specimen plants, but seldom massed, although it costs but 2s. a dozen. It looks best in a lawn bed, when the verdant turf shows up its peculiar tint; this is named William Neil. To mix it with gay colours is to utterly destroy its beauty, but with white Stocks it forms a delightful bed-filling.

A bed all of Peach-coloured Stocks looks well, with a trio of plants of the grass-green tall annual *Artemisia annua* for a centre-piece. Cream Stocks and Cannas combine well, or double rose *Petunias* and carmine Stocks.

A last suggestion may be a bed of alternate tall white Cornflowers and the Cupid Sweet Pea Pink Cupid. E. J. D.

## THE GREENHOUSE.

### GLOXINIAS.

**B**y successive pottings Gloxinias may be had in flower during the greater part of the year. They are always attractive, on account of their grand colours, ranging from intense crimson through all the shades of blue to pure white. Some are also most beautifully spotted. Seeds should be sown in January or February in a well-drained pan filled with a compost of peat and leaf-soil in equal proportions, with plenty of sand, passing the whole through a very fine-meshed sieve. Cover the seeds very slightly, and place in a temperature of 65° to 70°, covering the pan with glass. On the appearance of the seedlings, a sharp look-out must be kept to prevent damping, to which they are very liable in a young state. As soon as large enough, place into other pans or boxes about 2 inches apart in



A NEW MARSH

MARIGOLD OR

KINGCUP.

(CALTHA

POLYPETALA.)

(About natural size.)

the same compost as in the seed-pan. Pot off as soon as large enough into 3-inch pots, and when they require it into 5-inch pots, in which they will flower.

Seedlings make good plants, and flower within six months of sowing if kept growing without a check in a warm, moist atmosphere. Any special variety may be increased by cuttings taken off the old bulbs when started into growth, also by leaves taken off at any time when firm enough, and placing in a propagating case. After the flowers are over and the leaves show signs of ripening, water should be gradually withheld until they are thoroughly ripened. Then the bulbs may be stored for the winter, never allowing the temperature to fall below 80°, or many of the bulbs may be lost. These may be started again into growth in February, or, if a longer display is required, start them in successive batches. I much prefer to start them in boxes of leaf-soil. The soil best suited to them consists of equal parts of peat and leaf-soil, with plenty of silver sand.

When in full growth the plants require plenty of water, and weak liquid manure when the pots are full of roots and the flowers are showing, but great care must be taken when applying water or stimulants that they do not touch the foliage, or it will be disfigured. They require most careful handling at all times, as the leaves are so brittle. They need a light position, but must not on any occasion be exposed to the strong sun. The best plants to associate with them when in flower are the Cocos Palms, *Adiantum*,

*cuneatum* and *gracillimum*, and *Eulalias*; in fact, anything of light, graceful growth.

Towcester.

GEORGE F. HALLETT.

### THE OXALIS.

In this large genus of over 200 species a number of most useful greenhouse plants are to be found. They are of very easy culture in light sandy soil. The plants increase rapidly in size, and are readily propagated by division of the tuberous roots, cuttings, or seeds. Several of the species when grown in pots are very useful as an edging or as a ground-work for taller plants. A pretty effect is obtained by growing them in masses on the rockery in a sunny and moderately dry position in the greenhouse. Many of them are of a more or less drooping habit and make very pretty basket plants. Wire baskets lined with moss may be used, or when the plants are growing well in the pots a wire can be placed round the rim and they may be suspended from the roof in this way. Well-grown plants make a good show the first year, but they flower much more freely the second if fed liberally with manure water. The flowering period is roughly from March to August, but varies considerably according to the species and mode of treatment.

*O. floribunda* (illustrated on next page) is one of the best. This is the second year it has flowered in this basket. The rose-coloured flowers and shamrock-like leaves are very freely produced.

*O. cernua* is a yellow flowered species, with





A GOOD BASKET PLANT (OXALIS FLORIBUNDA).

rich, dark green leaves; more slender in growth than the foregoing species.

O. Bowiei, a large rose-coloured flower with a yellowish eye, leaves large for an Oxalis, more sturdy in growth; from the Cape of Good Hope. Flowers later than the above two species. A. O.

plaiting the leaves together, and if all annuals are sown early round each clump they soon hide them. I remade my border last autumn, and had fully intended dividing my Daffodil clumps,

which had not been disturbed for five years, but for reasons I was unable to do so, and they are quite as fine, if not finer, this spring. I am told a little weak liquid manure is very beneficial, administered when the flowering period is over, particularly in dry weather.

AUGUSTA DE LACY-LACY.

#### NEW SEEDLING DAFFODILS.

AMONG the many exquisite flowers at the Midland Daffodil Society's show, held at Birmingham on the 25th and 26th ult., the little group in the accompanying illustration includes perhaps the most interesting flowers in the show. They are the favoured few which were singled out as being worthy of special awards as new and improved varieties. On the left we have Fiona, from Mr. E. M. Croasfield, one of the new white trumpet varieties; a glorious flower. Next, on the right, is Erda, from Mr. E. M. Croasfield, a flower belonging to the Parvi-Coronati group, beautifully formed, with pale sulphur perianth and flat crown of brilliant orange, shaded to red on the margin. Beneath this is Easter, from Mr. A. M. Wilson, in my opinion one of the most beautiful flowers in the show, its perianth segments flat, overlapping, well rounded, and pure white, with a cup beautifully formed and of an exquisite shade of lemon, giving the impression that it had absorbed the soft sunlight of an April day. On the right of Erda is Masterpiece, from Messrs. Barr's famous collection, a flower of refined form, with well-rounded, glistening white perianth and a flat crown of deep orange-red. The name is indeed well chosen. Such a flower as this is indeed a masterpiece of the raiser's art. Beneath the last mentioned is Red Ensign, from Messrs. J. R. Pearson and Sons, a fine flower, with flat crown of intense crimson-scarlet; and last, but by no means least in importance, on the extreme right of the illustration is Mrs. Ernest Croasfield, a glorious white trumpet of beautiful form. It

## DAFFODIL NOTES.

### DAFFODILS NOT FLOWERING.

I HAVE been reading with interest the correspondence about Daffodils in THE GARDEN (April 21), and there are capital hints about non-flowering Daffodils in "Gardening for Beginners." I, personally, think that their non-flowering is caused by a more obscure reason than overcrowding. In a field near us on a sunny bank wild Daffodils have flowered for a hundred years, and have increased so that the grass does not grow there. It is always a sheet of gold from March to April. I have observed that Daffodils greatly dislike being moved, the new ripe bulbs flower well the first year, and then there is often a year of disappointment, only a percentage of flowers, and then once more they become floriferous. Daffodils dislike manure; if it is brought in contact with the bulb the foliage yellows and the flower buds are abortive. I believe in not cutting the leaves; indeed, I do not allow the foliage to be cut in the borders. I also believe the bulbs require plenty of sunshine to ripen them. I have some Daffodils in the orchard; those in the shade do not flower as well as those in the open.

The trouble of the untidy decaying foliage in the mixed border can be obviated a good deal by



NEW SEEDLING DAFFODILS, EACH OF WHICH RECEIVED AN AWARD OF MERIT AT THE MIDLAND DAFFODIL SOCIETY'S SHOW HELD RECENTLY.

Fiona.

Erda.  
Easter.

Masterpiece.  
Red Ensign.

Mrs. Ernest Croasfield.

is difficult to imagine a more perfect bloom of its class than this.

#### DAFFODIL STRIPE DISEASE.

REFERRING to Miss Currey's notes on the so-called "Yellow Stripe Disease" in Daffodils in THE GARDEN of the 28th ult., I feel sure that she is correct in her surmise that the discoloration of the foliage is due to mutilation and consequent bleeding of the bulb. I have noticed the same thing in freshly-planted offsets, especially in varieties which are of rather delicate constitution, such as Maximus, C. J. Backhouse, M. J. Berkeley, Queen Sophia, and others, and I have also noticed that when a clump of bulbs has been accidentally disturbed or injured in the process of digging, the foliage and flowers of the bulbs so injured are distorted, stunted, and often of a pale streaky colour. One can understand that if a bulb is cut or injured the consequent bleeding weakens it and causes the blooms and foliage to be misshapen and partially colourless, for the blooms are affected in the same way as the foliage. When an offset is cut away from the parent bulb before its base is completely formed, such a bulb has to depend on the semi-circle of roots which is formed on the uninjured side for nourishment, and it can only be expected to make but a poor show until by an effort of Nature it has in due time recovered its normal condition. If such a bulb is again lifted and mutilated, the following season it will naturally go from bad to worse, and the only remedy is to leave it alone until it has had time to recover.

W. A. WATTS.

Bronwyfa, St. Asaph, North Wales.

I HAVE read with much interest the notes and suggestions both of Miss Currey and Mr. Goodwin with regard to the stripe in the leaves of Daffodils. The former says, "I do not believe the thing is a disease at all"; the latter heads his note "Yellow Stripe Disease." Doctors differ. Here I would suggest the difference probably is caused by one writer using the word disease as if it were "infectious disease," and the other as "non-infectious disease." Clearly the fact of the leaves being striped with yellow means that the plant is not as healthy as it should be; it is diseased. So far I agree with Mr. Goodwin and say, "it is a disease." Now what I have noticed in my own garden is that year by year it is the same varieties that show the "yellow stripe." Sir Watkin, Princess Ida, and Grand Duchess, to take different sections, are among the worst offenders, and always have it more or less; while, on the other hand, Emperor, Barri conspicuus, and Minnie Hume have never shown any sign of it. Hence my conclusion is that it is not infectious. If it were I think all my bulbs would suffer, for I have never taken any precautions about storing "striped" bulbs next to "non-striped," or planting or not planting sound stock where last year there was a "striped" variety. So far I agree with Miss Currey if I may interpret her remark as meaning "I do not believe the thing is an (infectious) disease at all."

This question of the disease being infectious or non-infectious is the first one we should try and settle, and this can only be done by growers recording their individual experiences and comparing the results. This settled, we must, of course, go on and try to find out the cause. Unsuitable soil, over-manuring, and over-division or clumsy division of bulbs are suggested. It may be that each of these is an important factor, and very likely, if we only knew the exact soil and the right manure, and how and when best to divide the bulbs, the kinds liable to the stripe would become normal and healthy, or at least more normal and healthier, for it seems that some have a tendency which is inherent in them to go wrong.

The second point to settle is this: "Will some varieties always show the yellow stripe, cultivate them as we may?" I am inclined from my

personal experience to say "Yes." The third (and, as far as these remarks are concerned, the last) point to consider is this: "What is it that makes what are one year a lot of healthy bulbs become another year affected with yellow stripe; or what is it that makes varieties that are notoriously subject to it worse one year than another?"

Miss Currey suggests bleeding, caused by over or wrong division of bulbs; but my experience tends to negative this. I divided up Emperor just as much as I did Sir Watkin last autumn, and there is no yellow stripe on the Emperor, while the Sir Watkin are rather worse than usual. The cause cannot be too much division in itself, or one sort would be equally affected with the other. At the same time, I would not go so far as to say that in sorts liable to the disease this may not be a contributing cause.

Like the proverbial ladies' postscript, I would suggest in a few final words another reason for the appearance of this mysterious yellow stripe. May it not be cold? This year I grew probably 2,000 Sir Watkin under glass in boxes and pots. I noticed that there was very little discoloration to be seen in the leaves, although the bulbs were from exactly the same lot as those that had it so badly in the open border. Again, this year I saw in Mr. Dawson's garden at Penzance some Gloria Mundi; they looked as well as possible, but he told me the identical bulbs I saw had been returned to him from Cheshire because the flowers were so small and poor—they could not be true. Now this year my own Gloria Mundi are some of them touched with the yellow streak, and they have not been as large as usual. May it not be the same with the bulbs in the Cheshire garden? Coming from Cornwall they felt the cold of the rather low-lying Cheshire garden, and they went like mine. Returning to the more congenial climate of the southern county, they at once got back their usual vigour and health. To sum up, I would submit as one cause of the yellow stripe in Daffodil leaves—cold.

Salop

J. JACOB.

#### HOOP PETTICOAT AND OTHER NARCISSI AT CARRUCHAN, DUMFRIES.

So many people find a difficulty in establishing the Hoop-petticoat Narcissus, N. Bulbocodium or Corbularia, that it is always encouraging to see it established in the border in a garden. One was pleased to see two varieties well established in the most interesting garden of Lieutenant-

General Stewart at Carruchan, Dumfries. The two were the typical N. Bulbocodium and N. B. citrina, both quaint in their way, as most people are aware. They were in a border of somewhat peaty soil, and beside them were such flowers as Arnebia echioides, American Erythronium, and several Anemones of the nemorosa class. Equally interesting was it to see N. triandrus albus established in the same border, as well as N. Johnstoni Queen of Spain. Lieutenant-General Stewart has had these Hoop-petticoat Narcissi in the garden for about seven years, but the others have not been there quite so long. All are, however, doing well, as are the many other Daffodils in the same garden, which it is some time since I visited, but which has greatly improved in interest since my first visit. Lieutenant-General



THE MAIDEN'S WREATH (FRANCOA RAMOSA) GROWING OUTDOORS IN A NEW ZEALAND GARDEN.

Stewart is a great admirer of hardy flowers, and it is quite a pleasure to discuss them with one with so much knowledge of their ways in the garden. S. ARNOTT.

#### A NOTE FROM NEW ZEALAND.

I HAVE to thank you for inserting an account of our Daffodil show in THE GARDEN. I am enclosing a photograph of a Francoa growing in my garden, with a background of Bougainvillea. If you have room kindly have it reproduced in THE GARDEN. Your paper is known to many in New Zealand, and I hope will circulate still more in the Colonies. G. HUNT.

Victoria Road, Devonport, Auckland.

## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**H**OW TO GROW TOMATOES IN GREENHOUSE OR FRAME.—Unless one has a warm wall or a warm border, it is hardly wise to attempt the cultivation of Tomatoes out of doors; but they may be grown with great success in a greenhouse which receives a fair amount of sunshine. They may even be grown quite well in an ordinary cold frame such as almost every garden possesses; this is often disused during the summer months, and could scarcely be used to better advantage than in the growing of Tomatoes. It is most convenient to grow them in large pots; if you have not been able to raise the seedlings and grow on the plants, the latter should now be bought and immediately be potted into pots of 10 inches or 12 inches in diameter. Strong and sturdy plants should be obtained which are well rooted in smaller pots. Make sure that the 12-inch pots are carefully drained, and use a soil consisting of three parts loam with one part horse manure; add a little bone-dust, and mix

Quite Cool Treatment, at any rate, until the fruits are formed. After a week is over the plants will need no more shading. Give plenty of air when the weather is warm, and on really hot days the frame-light might be removed altogether. Take great care that the soil in which they are growing is not allowed to get dry. Before long a bunch of flowers will appear on the main stem, and if all goes well several of them will set and the embryo fruits will be formed. In order to make sure of having a crop of fruit, it is advisable to fertilise the flowers by artificial means, for sometimes they fail to set freely, especially in dull weather. This may be effected as follows: Holding the bunch of flowers with the left hand, place the nail of the thumb immediately underneath the flower, and, holding a penknife in the right hand, with the point of the blade scratch the flower so as to make the pollen fall upon the thumb-nail; then gently press the end of each flower in turn into the pollen on the nail. When the pollen is used up, more may be obtained in the way described. If every flower is thus treated, a good crop of fruit will be assured.

Plenty of Air is especially important when the plants are in flower, so that the pollen may be kept dry and so disperse freely. As soon as you have secured four bunches of fruits the end of the stem should be pinched out, for it is not advisable to attempt to grow more than three or four bunches of fruit upon each plant. By pinching out the end of the shoot the plant is made to concentrate its energy upon fruit production rather than growth. Laterals or side-shoots will appear, but they must be stopped as soon as they have made a couple of leaves. If any of the leaves on the main stem are so large as to shade the fruits considerably, they may be cut in half; this will do the plants no harm and will give the

fruits a better chance of ripening. As soon as a sufficient number of fruits are formed,

*The Top-dressing* previously alluded to may be given. It should consist of good soil with which some manure has been mixed. Place this in the pots so as to fill them to within 1 inch of the rim; this space must be allowed for watering. One of the most important points in the cultivation of the Tomato in the greenhouse or frame is

*The Watering.* Before the small plants are potted into the fruiting pots they should be well watered the day previous to potting. For several days they will require no more water, but as they begin to make fresh roots into the new soil more water will be necessary, and by the time the plants are in flower and the fruits are forming they will need a good deal, while they may need watering every day during hot weather when the fruits are fast developing. Once the plants are allowed to get dry it is more than likely they will be ruined. Owing to the large quantity of water which they require, it will be seen how essential it is that the drainage be good in the first place. When all the fruits are formed and

have begun to develop, they may be made to develop more quickly by closing the greenhouse or frame between three and four o'clock on sunny afternoons and an hour or two earlier on dull days, syringing the surroundings, but not the actual plants, at the same time. When, however, fruits show signs of colouring, the syringing must be discontinued, and more air must again be given; otherwise the fruits may crack. If the above details are carefully attended to, an excellent crop of Tomatoes may be grown either in a greenhouse or in an unheated garden frame.

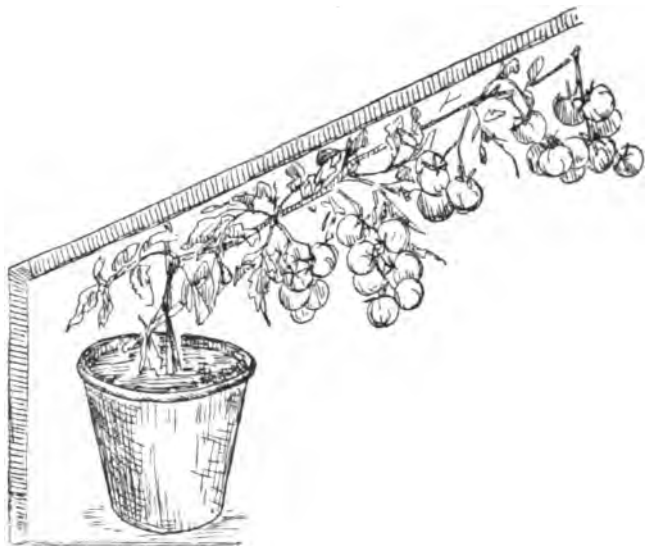
*The Flowers that Come and Go.*—The most beautiful gardens are those which have a continual succession of flowers which burst into beauty, last their allotted time, and then disappear without producing weariness. Pæonies are magnificent, and last just long enough. The old White Lily (*candidum*) comes and goes in the same manner. Carnations, Pinks, Pyrethrums, Delphiniums, Double White Rookets, and Poppies, how beautiful they are for a time till the petals fall and the seed-pods are visible, and then they disappear! Within a few feet of my window there is a long shady border on the north side of a row of pyramid Pears, and in this border there are several thousands of the Bunch Primroses flowering in many tints of white and yellow, reminding one of the masses of various kinds of flowers to be found in the woods. I like to see things in good-sized patches, not formally planted in lines or geometrical figures, but full enough to cover all the bare earth.—H.

*Pruning Clematises.*—All weakly plants should be cut down to within a few inches of the base. This is especially advantageous to the Jackmani section, which flowers on wood of the current year. Let them work up from the bottom, gathering strength as they grow, and the flowers will be larger and more numerous. With the other sections, which flower on wood of the previous year, or at least whose flowering shoots spring from buds made and ripened last season, the cutting back in their case will be for the purpose of giving vigour to them. If *C. montana* were pruned now all the flowers would be cut away; the time to prune this Clematis is immediately after the flowers fade. Clematis *Flammula* flowers in the autumn, and any pruning required is usually done in early spring, and plenty of strong growths are left to train in and fill up wherever there is space.

*Hardening Off.*—This term is applied to the removal of tender plants from a warm house to a cool one or to a frame before planting outside, and it is most important. Any plant taken from the greenhouse direct to the garden and planted will probably suffer, and will take some time to recover, but if hardened by gradual exposure the plant will become acclimatised and suffer no injury.—H.

## THE BEGINNER'S FRUIT GARDEN.

*The Pear.*—The Pear will live many years and bear good fruit under favourable conditions; it will also, when grafted on the Quince, begin bearing early. The Quince loves moisture, and if it is to thrive and give proper support to any tree grafted upon it, there must be moisture in the soil. This moisture can be supplied in the shape of a rich top-dressing that will hold it and give it off as required. There are some Pears that do not thrive on the Quince stock. Marie Louise is one of these. It will be understood, therefore, that Pears on the Quince and Apples



TOMATO PLANT IN POT IN GREENHOUSE.

all well together before using. Cover the drainage with rough pieces of soil so as to prevent its becoming choked, and place the plant rather deeply in the pot so as to allow of a top-dressing of rich soil later on. A certain number of new roots will then be encouraged from the base of the stem. The plants should be placed at the highest end of the frame, and the shoots trained down towards the lowest end. A rough trellis-work could easily be constructed upon which to train the Tomatoes, or even strong strings stretched from top to bottom of the frame would answer the purpose. If the plants are grown in the greenhouse, they should be placed near the sides so that the shoots may be trained up the roof. Each plant must be restricted to

*A Single Stem.* This is effected by cutting out every side growth which appears. After potting the plants the frame or greenhouse should be kept rather close for a few days, so as to encourage them to form fresh roots. If there is no artificial heat in the house, give only a little air and lightly shade the plants during hot sunshine. In about a week's time air may be given more freely, and from then onwards the plants must be given

on the Paradise must be nourished with rich top-dressings. The value of the Quince stock is in the early-bearing habit it imparts to trees worked upon it. A wall planted with Cordon trees on the Quince, trained obliquely, and well nourished, ought to be covered and be in full bearing before trees on the Pear stock have begun to fruit well. Cordons may be trained in the same way on a wire fence 6 feet high. We have seen them do well trained vertically, and bear very freely. The Pear stock is a good one when we want a big tree in seven or eight years or longer, but for prompt effect use the Quince, and give it all the nourishment it needs.

*Pears as Pyramids and Bushes.*—This is an excellent way of growing Pears on the Quince, or on good land, if one can wait, on the Pear stock. The Pear as an open pyramid, not too hard pruned, makes a very handsome tree, and bears abundantly in good seasons. On the Pear stock the trees should, looking to the future, be 10 or 12 feet apart, with low crops between for a few years. If on the Quince, the trees may be 9 feet apart, and there should be no digging over the roots. The trees must have nourishment on the surface.

*Pears as Standards.*—Some Pears will grow into very large trees, such as the Hazel or Heale, Old Early Lammas, Louise Bonne of Jersey, Jargonelle, Marie Louise d'Ucole, Fertility, Souvenir du Congrès, Williams' Bon Chretien, Conference, Pitmaston Duchess, Fondante d'Automne, and Doyenné du Comice (one of the best Pears grown). It is best to allow each tree to have 20 feet space, with for the first ten or fifteen years, other crops between. Unless the land is very poor, plant without manure and feed on the surface with rich mulchings. In pruning pyramid and bush trees, the first consideration should be given to the formation of the trees, and the second to thinning the young wood in summer so that every bud might have its proper share of sun. The bush trees only require thinning, but this thinning should be done in such a manner as to secure a well-balanced, ornamental tree. A badly shaped tree may bear good fruits, but it will also compare unfavourably with the tree which has proper training in its youth.

*The Plum.*—The Plum is more accommodating in the matter of soil than most fruits. It grows and fruits best on a limestone base, provided there is a good layer of soil above it; but lime must be present in the soil, and if not naturally, then it must be added. The best course is to mix a bushel or two of old plaster or mortar in the border just previous to planting. The Plum is not so long-lived as the Pear or Apple, but it comes more quickly into bearing. The tree must be cut back after planting, but the knife afterwards should be used only for the formation of the tree and for thinning crowded branches. As much as possible of this work should be done in summer. Standards or half-standards are most suitable for the orchard or wherever a plantation of Plums can be planted. If a small orchard is to be planted, plant from 15 feet to 18 feet apart. When Plums are grown on walls, they will grow in any aspect. The luscious Coe's Golden Drop should, if possible, have a good aspect to ripen and flavour the fruits. The Green Gage does not as a rule do so well, especially in the matter of flavour, on a bad aspect, though we have had it good on east and west walls. The old Green Gage is rather peculiar in its wants as regards soil. In some districts it bears freely in any form, in others failure after failure occurs. When this happens, give a good dressing of old plaster or mortar to the soil. The bush or pyramid is a good deal planted, and if the trees do not begin bearing in three years, lift and replant, spreading the roots out near the surface. The pruning, which should mainly consist of thinning and slightly shortening the young wood, may all be

done in summer. The pruning of the Plum should be on the same lines as that of the Apricot, which means that the young wood of trees on a wall should be shortened back to four leaves early in July, always excepting any shoot which can be reserved for laying in to fill between the larger branches. When the leaves fall, look over the trees again to remove dead wood, if any, and shorten spurs, so as to keep the trees under the warm influence of the walls. Good sorts are: Belgian Purple, Early Prolific, Transparent Gage, Golden Gage, The Czar, Monarch, Victoria, Coe's Golden Drop, Jeffersons', Pond's Seedling, Kirke's, and Damsone.

### TOWN GARDENING.

*Wireworms.*—These pests, which may easily be recognised from their bright yellow colour and tough, wire-like covering, soon play sad havoc with plants if they are not destroyed. They are especially fond of Carnations, and one often hears of the destruction they cause in a bed of these plants within a very short time. They are especially prevalent in gardens where the soil has been undisturbed for some time; indeed, one of the best methods of getting rid of them is to stir the soil frequently. Many may be caught in this way. When, however, the border is planted one cannot stir the soil so effectually. When a Carnation shows signs of withering it should be immediately taken up, and if wireworms are in the soil most probably one will be found in the extreme base of the stem. Sometimes they may be found some distance up the stem, eating out the heart of the plant as they go upwards. Perhaps the best means of trapping them is to insert out Potatoes and Carrots about 2 inches below the surface, having a piece of stick attached to each one so that it may be examined daily. Numbers may be caught in this way. When the baits are examined the wireworms will be found half buried in them busily feeding. Applications of soot and lime tend to keep them away.

*Globe Flowers (Trollius).*—Some years ago a group of these was planted in a wet and weedy place where Docks and coarse Grasses had had all their own way, and ever since that little spot has been a delightful feature each spring. The Globe Flowers have held their own and increased in strength from year to year, clearly indicating that with suitable soil all other details of cultivation are needless so far as they are concerned. Some of the prettiest floral effects in gardens are chance results, and so with these Globe Flowers; anywhere else but where they are they would not look half so pretty. Among the flowers which love the water-side this is one of the earliest, flowering with the King Caps of the wet meadows, equalling them in richness of colour, but much more effective, being taller and the flowers much larger. Anyone that has a wet spot about the garden should try a group of Globe Flowers. Here, again, are many names, but few varieties. *Trollius europæus*, *T. asiaticus*, and *T. giganteus* will be found some of the finest, brightest, and best of the family.

*Thinning Seedlings* is now an important work that should not be neglected. The annuals that were sown late in March or early in April are now growing quickly, and must be thinned out freely where they are thick. The work of thinning should not be completed at one time, but on two or three occasions. Due regard must be had to the character of the plants that the seedlings will produce in due course, and the thinning must be regulated accordingly. Such as Virginian Stock, Linum, and Candytuft may be left more thickly than, for instance, Marigolds, annual Chrysanthemums, Lavatera, and other strong-growing plants. The height and size of the fully-grown plant should be borne in mind when thinning, and the work so carried out that after the final thinning each plant has sufficient

room in which to develop properly. It is easy, if one knows them, to keep in mind the approximate size of the plants one is thinning, or if one does not know them it is an easy matter to find a description in the catalogue. It is only by thinning the seedlings in an intelligent manner, according to the space each full-grown plant should occupy, that annuals can be had at their best.

### THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, W.C.

#### DOUBLE PRIMROSES.

From Tullykenny, County Tyrone, Miss Montgomery sends a beautiful lot of double Primroses, among them being the fine double velvety crimson Pompadour. This is a charming flower, and is not at all common in gardens. Another pretty flower is the semi-double Goldlocks. Cloth of Gold is pale primrose coloured. Double Lilac is a name that correctly describes the colour of this variety, and Double White is a term which also correctly describes the variety to which it refers. French Grey is a very pretty form. Miss Montgomery also sends flowers of the single blue Hose-in-Hose, and Miss Massey Polanthuses, all really good forms of this valuable garden flower.

#### PANSIES AND VIOLAS FROM ROTHESAY, N.B.

As is well known, the firm of Messrs. Dobbie and Co. have made these beautiful flowers a speciality for many years. Some of the finest varieties now in cultivation owe their origin to the firm's persistent endeavours in the way of improvement. Another beautiful gathering of these flowers was recently received, and a few notes on some of the more striking varieties may prove of practical interest. Beginning with the fancy Pansies, Madge Montgomery is a new variety raised by the firm and put into commerce this year. The flower has claret blotches, with creamy white edges, top petals claret, with slight cream edging, splendid under petal, a flower of fine substance. Of last year's varieties well worthy of mention are: King Edward, blotches deep maroon, with edging of mulberry and belting of yellow, top petals white, with heavy belting of purple maroon; Jessie L. Arbackle, large perfect blue blotches, with white margins, top petals purple and white, a large constant flower; James Johnston, bluish black blotches, belted with straw, upper petals white, with pale purple and white edging. Among older varieties very good were John Picken, large smooth blotches, edged with bronzy yellow and pink, upper petals bronze and pink; Duke of Argyll, large dark blotches, edged lemon yellow and rose, upper petals dark purple, suffused rose; Coronation, large dense plum blotches, edged creamy white, upper petals cream, heavily edged with violet. In the Viola way, some striking flowers sent out this year were noted in Mrs. J. H. Rowland, a quite distinct shade of rose colour, flowers of splendid form, by far the best of its class; Annie P. Findlay, large rosy purple, somewhat darker round the eye, top petals a shade lighter than



the lower ones, a fine acquisition; Kate Houston, white ground, colour heavily belted with rosy mauve, the markings on all the petals being similar, a rayed flower of great merit; Kate Cochrane, lower petals crimson purple, with a trace of lavender, upper petals pale lavender, with fine eye, a flower of splendid form. Of the 1905 varieties may well be mentioned Effie, pure white, belted with violet and purple, upper petals rosy purple, a great improvement on Butterfly; Crieffie Smith, dense glossy blue, black under petals, shading off to lavender at the edges, upper petals lavender, distinct eye and white brows. One of the finest striped varieties is John Cunningham, soft rose ground, striped with purple and maroon, upper petals a shade lighter than lower ones, fine form and substance; Lady Grant, large white centre, slightly rayed, and edged bluish purple; Lizzie Storer, glossy black under petals, each tipped with lavender, upper petals clear lavender, a large and improved Mrs. T. W. R. Johnstone. Among the older varieties very striking were General Baden-Powell, large orange, rayless belt; and Duchess of Argyll, large white centre, with deep glossy purple edge.

#### POLYANTHUSES AND PRIMROSES.

From Bronwylla, St. Asaph, Mr. Watts sends a charming collection of Polyanthuses and Primroses. The flowers are large, the petals broad and rounded, and the colours are unusually rich and varied. The Polyanthus flowers are produced on long stiff stalks, and are most useful in the border at this season of the year. We will not attempt to describe the colours, for the tints are so rich and varied as to render description almost impossible.

#### PERRY'S PHLOX.

From the Hardy Plant Farm, Winchmore Hill, Mr. Amos Perry sends some flowers of his beautiful Phlox, called Phlox Laphami, Perry's variety. It is wonderfully free flowering, and the flowers, which are of good size, are a pretty pale lilac-blue in colour. This is a plant for every garden, for it is in flower the whole summer. Mr. Perry also sends Phlox pilosa with bright rose-coloured flowers, very bright, and welcome at this time of the year. Tulip Lord Beaconsfield is a rich rose-coloured double variety. Mr. Perry sends a bunch of these, and we can well imagine what a grand show they make in the border. The striking Euphorbia Wulfeni was also received from Mr. Perry.

#### FLOWERING SHRUBS FROM THE ALDENHAM GARDENS.

Mr. Beckett sends from Aldenham Gardens specimens of the following with notes:

*Xanthorrhiza apiculata*.—A pleasing shrub for a damp, shady place, and the small, brownish purple flowers are rendered conspicuous by the freedom with which they are produced. These appear just as the foliage, which is very ornamental throughout the summer, begins to expand. A small bed gives an excellent effect under the shade of larger trees.

*Lonicera, Blanc Virginale* is one of the best of the shrubby Honeysuckles, the flowers being pure white, and though not fully out you will see they are produced with great freedom. [A beautiful Honeysuckle.—Ed.]

*Cydonia japonica (Japanese Quince) sinica*.—This appears to be little known yet it is unquestionably the best of the family. When grown as a shrub the flowers are produced quite as freely as on the typical form, and are a striking, rich crimson colour, and semi-double. [An intensely rich colour.—Ed.]

*Cydonia japonica, Mallardii* is very distinct, having large, creamy white flowers in abundance.

*Ribes aureum*.—This is one of the most desirable of flowering Currants; but to induce it to flower freely pruning must be done every

year. It makes a free growth, and the stems of the current year should be shortened back about half their length when ripe in the autumn.

*Ribes lacustrii*.—A fine shrub for overhanging large boulders in the rockery, old tree stumps, &c.; it has long, drooping branches, which are thickly clothed with greenish yellow and red flowers. This shrub requires little pruning, and to be seen at its best should be allowed to grow as freely as possible.

*Pyrus floribunda atrosanguinea*.—This is a very beautiful, richly-coloured form of the well-known *P. floribunda* and should be included in every garden. The best results are obtained when it is planted on grass or given a prominent position in the shrubbery where the pendulous branches have ample room to develop.

#### FLOWERS OUT-OF-DOORS IN SOUTH DEVON.

Mr. Fitzherbert sends from Kingswear, South Devon, a flowering shoot of *Sutherlandia frutescens* with deeply out grey leaves and handsome pea-shaped scarlet flowers; *Buddleia Colvillei* with pretty rose-coloured flowers, having a white throat; and *Myositidium nobile* (Antarctic Forget-me-not), a strong-growing plant, native of the Chatham Islands in the Pacific, with heads of numerous flowers, which are violet blue when first opening, and afterwards become tinged with red.

#### THE MOURNING IRIS (IRIS SUSIANA).

We were very glad to receive flowers of the fascinating *Iris susiana* from Mr. F. C. Puddle, The Gardens, Scampston Hall, Rillington, York. This is one of the best known of the Cushion Irises, and will succeed out of doors on a dry sunny border. Our correspondent writes: "A few flowers of *Iris susiana* from plants in a cold frame. The plants from which these were out have been cultivated in these gardens for the past eight years, and are now flowering better than ever. We have had much finer flowers than those sent, but unfortunately they are over."

#### LATHRÆA CLANDESTINA.

Mrs. Moore sends from the Botanic Garden, Glasnevin, Dublin, flowers of this interesting *Lathræa*, with the following note: "I send you some flowers of this Toothwort, which has been in flower here for some weeks. Mr. Irwin Lynch of Cambridge presented a plant to Glasnevin four years ago. It was planted by the roots of a Willow near an old mill-race, but did not flower until this year. Its bright violet flowers, 2 inches long, with dark purple lower lip, are borne on stems nearly buried in the earth, densely crowded, 4 inches high, growing in a thick mass. The plant has now spread over three-quarters of a yard of ground. This plant is probably fertilised by the common blow-fly, for which it seems to possess attractions, as large numbers frequent it, and I have not noticed any of the common or hive-bees about it, although there are numbers visiting adjoining plants. *L. clandestina* is of rather restricted range; it is common in the West and South of France, and is also found in Spain, Belgium, and Italy. In THE GARDEN, April, 1869, page 316, it is stated that in the grounds of the Lord de Saumarez, Bury St. Edmunds, there is a plant of *L. clandestina* established on the roots of a deciduous Cypress. In Europe its favourite hosts are the Willow and Poplar."

#### SUTHERLANDIA FRUTESCENS.

From the Royal Nurseries, New North Road, Exeter, Messrs. Robert Veitch and Son send flowering shoots of *Sutherlandia frutescens* with the following note: "We are sending you by today's post flowers of *Sutherlandia frutescens*, which does well outside in several places in Cornwall. Mr. Fitzherbert also speaks of it as doing well in the West."

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**SUMMER BEDDING.**—Now and for a month onwards bedding out will be the chief work. The days are long, with, perhaps, plenty of sunshine, but the nights are often very treacherous, with possible frost, and the exercise of a little patience may save many a valuable lot of tender plants from being injured beyond recovery. In the southern counties bedding may be commenced earlier with safety, but locality must be taken into consideration. Sharp frosts are sometimes experienced here about May 20; consequently before that date we only bed out such plants as will stand a few degrees of frost without injury.

It is of great importance gradually to harden the plants for the change by free exposure at every favourable opportunity, taking the lights off the frames in the daytime, and leaving air on at night.

As the flower-beds are cleared of their spring flowers they should be liberally manured and deeply dug. This important item is frequently neglected, though to do so is a great mistake.

VIOLAS are used largely for bedding purposes now, and to have them in perfection during the hot weather is absolutely impossible unless the beds are well manured and deeply dug, so that their roots can penetrate sufficiently to enable the plants to withstand the heat. Choose young plants of these, as they are more reliable than old ones and flower in greater profusion during the summer.

Begin bedding with *Antirrhinums*, *Calceolarias*, *Dianthus*, *Stocks*, *Phlox Drummondii*, *Verbenas*, and all the hardiest things first. Follow on with subjects which are rather more delicate, *Petunias*, *Heliotropes*, *Asters*, *Zinnias*, &c., until most are planted, reserving the tenderest, *Dahlias* for instance, *Begonias*, and sub-tropical plants such as *Ricinus*, *Solanum*, *Wigandias*, and carpet-bedding plants. *Alternantheras* and *Coleus* had better be kept where they can be protected till the first or second week in June.

STOCKS are valuable bedding plants, and are prized for their delightful perfume, but although they come fairly true to colour, there is always a small percentage of single flowers. Allowance should be made for these by planting them rather thickly. The plants with single flowers may be removed directly they can be detected, so that the remaining plants will fill up the spaces.

G. D. DAVISON.

Westwick Gardens, Norwich.

### FRUIT GARDEN.

**THE CODLIN MOTH.**—Where this insect pest is prevalent, means should be taken to destroy it at this season, the best time for applying an insecticide being immediately after the petals have fallen and the fruits are set. Paris green, distributed by means of a sprayer in the proportion of 2oz. to twenty gallons of water, makes a good dressing. As this is a very poisonous substance, great care is necessary in its use. As the Paris green powder does not dissolve in water, but is merely held in suspension, it is necessary to keep it frequently stirred. The codlin moth is, perhaps, the most common—or, at least, the most familiar—pest that is known to infest the Apple crop, its presence in an orchard being easily detected by the quantities of half-grown fruit which are found lying beneath the trees. From the eggs, which are deposited by the female moth in the calyx of the flower, grubs develop, which eventually eat their way into the core of the fruit. These grubs are generally found to be fully developed when the fruits drop, so that gathering and destroying all the Apples that fall prematurely from the trees are necessary, for if

left on the ground the grub soon finds its way back to the tree to spin its cocoon and hibernate in some crevice of the trunk or branches till the succeeding spring. When the advantages of spraying are more fully realised and the winter washing with caustic soda solution becomes a universal practice, the resulting clean and healthy branches of fruit trees will not present such a happy hunting-ground for the various insect pests as they do when covered with moss and lichen. The fact that the systematic spraying of fruit trees by most leading cultivators, especially those who grow exclusively for market, has been adopted shows that the practice may be looked upon as one of dire necessity. If any of the trees are affected with

**AMERICAN BLIGHT**, the patches should be dabbed over with a stiff brush dipped in petroleum or methylated spirits, repeating the operation at intervals during the season.

**GOOSEBERRIES** on suitable soil are generally exempt from any form of disease, but they are particularly liable at this season of the year to attacks from various sorts of caterpillars, which denude them of their foliage and render the fruit useless; the Gooseberry caterpillar, and the larva of the Gooseberry and Currant saw-fly, being the worst. Their mode of operation, their appearance, and time of attack are wholly different, but the results to the bushes are pretty much the same, and, if not checked they soon present a miserable appearance, the leaves being riddled with holes in all directions. The most effectual remedy is to destroy them in the pupa state while in the soil underneath the bushes, by removing the surface soil to a depth of 3 inches and burning it, replacing it with fresh soil and a good dressing of soot and lime. With plantations of small dimensions the most effectual remedy at this season is hand picking. Where large breadths are affected, dust the leaves when they are moist with Hellebore or Tobacco powder, soot, lime, or other noxious applications that will make the bushes distasteful to the moths. After applying any of the above remedies, especially the Hellebore, great care should be taken not to use any of the green fruit for tarts or for bottling until they have been thoroughly cleaned by rain.

**RASPBERRIES**.—Suckers are now making their appearance through the ground, and six or eight of the most promising of these in the best position for furnishing next season's canes should be selected and all others pulled out, suppressing rigorously all those that show themselves later. To increase the plantation, young stools may be procured by leaving small groups of two or three suckers together, preferably at some little distance from the old stools.

THOMAS R. WILSON.

Hamis Castle Gardens, Hamis, N.B.

### KITCHEN GARDEN.

**THINNING SEEDLINGS**.—The thinning of the main root crops—Onions, Carrots, Parsnips, &c.—should be taken in hand before any of the tops become so thick as to suffer. Generally speaking, in gardens a certain number of large Onions are grown for special purposes, and the rest as an ordinary crop for general use. More often than not these large bulbs receive special treatment in the way of sowing, and are planted out at suitable distances to allow of proper development. If large Onions are desired from the main sowing, the bulbs must be thinned to at least 8 inches apart; for general use less thinning is required. It is advisable to thin lightly at first, going over a second time if necessary. Silver-skinned Onions grown for pickling require no thinning at all. Do not thin Carrots to the full distance in the first instance; leave some that may be drawn out later for immediate use when frame Carrots are becoming exhausted. At the final thinning a distance suitable to the variety grown must be allowed; very big varieties, such as Long Red Surrey, require 10 inches. The thinning of

Parsnips may be completed in the first instance; a distance of from 8 inches to 10 inches should be allowed between the roots.

**BEANS**.—Make another sowing of Runner Beans, inserting the seeds in double rows 6 inches apart and 12 inches in the row. Beans that are coming through the soil will require frequent dustings with soot and lime as a safeguard against slugs. Dust in the morning when the leaves are wet with dew. If frost should threaten, they will require a slight protection. Make successive sowings of Dwarf Beans every two or three weeks. The Climbing French Bean should find a place in every garden; sow as recommended for Runner Beans. Sticking as recommended for Peas will be necessary for these Beans, selecting tall sticks. A late sowing of Broad Beans should be made at once. Select a cool site; on light soils trenches should be made. The Broad Windsor is perhaps the best variety for sowing now.

**PACKING VEGETABLES**.—Stout wicker hampers are preferable to boxes, as air can reach the contents. Heavy things such as Potatoes, Turnips, Onions, and Rhubarb should go to the bottom; Runner Beans and Peas will also stand a fair weight. Separate each kind of vegetable by Rhubarb leaves. Pack Cucumbers in loose Spinach; Asparagus and Dwarf Beans are better wrapped in paper and also packed in loose Spinach; Mustard and Cress and Mushrooms should be packed in small boxes; Cabbages, Cauliflowers, Lettuces, and herbs tied up into bunches should be kept at the top of the hamper, which should be packed firmly.

Make another sowing of approved varieties of late Cauliflowers, Self-protecting Broccoli, and also of Broccoli for winter and spring use; also more Savoy, Cabbages, and Kales. Sow Radishes in a cool place, and Mustard and Cress may be sown out of doors on a finely-prepared piece of ground.

J. JAGUE.

Bryanston Gardens, Blandford, Dorset.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers**.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

### FLOWER GARDEN.

**SUMMER FLOWERS** (M. R. Kirkpatrick).—Such plants as Ageratum, Alonoea, Celosia, Godetia, Nemesis, Petunia, Phlox Drummondii, Salvia, Verbena, Nicotiana, and Heliotrope, all summer-flowering plants, are at their best during July and August. By planting your flower-beds with these you will attain your first object, i.e., that of having a blaze of colour at one time, but they will not all continue to make a good show until out down by frost. Phlox Drummondii, Salvia, Verbena, Nicotiana, and Nemesis will continue to flower more or less until autumn, but the others, once they have passed their full beauty, will not make a good display. In order to have flowers in the beds during September and October, you should take up such as Heliotrope, Ageratum, and Celosia, and plant Michaelmas Daisies and early-flowering Chrysanthemums which have been grown in pots during the summer months. It would be better still to plant these in the beds when the other plants are put out; then,

when the summer flowers were over, the Chrysanthemums and Michaelmas Daisies would continue the display. Another alternative would be to plant bulbs of Liliun tigrinum and Liliun speciosum in the beds when the summer flowers are put out; these would give you blooms in early autumn. The Viola or Tufted Pansy flowers practically all the summer through and into the autumn, and makes a very beautiful show for many weeks. This would probably give you satisfaction. You cannot expect your beds to be a blaze of colour throughout summer and autumn by one planting only.

**ANEMONES FROM SEEDS** (E. A. B.).—The seeds of some species vegetate quite early, while others remain dormant for some time. If you were assured of the quality of the seeds of *A. fulgens* at sowing-time, and have treated them in the meantime as you have the others, there is no reason why a crop of seedlings may not yet appear. We have frequently had seeds of some tuberous kinds remain a whole year dormant. *A. coronaria* and *A. blanda* forms usually flower well when about eighteen months old, but these are exceptions in this very large genus. No special treatment is necessary, a good way being to sow thinly in drills of about half-an-inch deep, covering the seeds with sand, and finally with soil.

**VARIOUS SEEDS** (Hopeful).—*Ethionema stylosa*, *Alyssum saxatile* var. *citrinum*, *Dianthus glacialis*, *Delphinium* var., *Cenothera brachycarpa*, and *Glaucium flavum tricolor* will generally flower within the twelve months if treated well, but it all depends on the time of sowing, and they will often take a year and a-half to make flowering plants. If sown now they will all flower next year in early summer, or the *Dianthus* in spring. *Astilbe Davidii* will take about two years, also *Miclauxia Tchibatoheffi* and *Asphodeline imperialis*. *Bocconia* take longer still, while *Meconopsis integrifolia* seeds will often lie a year before germinating. If, however, they can be raised by March of one year, they will generally flower by the May of the next year. Seedlings should be potted off first out of the seed-pans, and only planted out in their permanent quarters when they have reached a respectable size. If not potted they ought to be pricked out into shallow boxes instead, and grown on till large enough. A mixture of loam, leaf-soil, and sand will suit all those mentioned except *Dianthus glacialis*, which requires very gravelly soil, and *Meconopsis*, which requires a peaty soil.

**MAUVE GARDEN** (E. Newton).—The chief constituents of a garden of this kind, at the elevation proposed (800 feet), would have to be various kinds of *Asters* or *Michaelmas Daisies*. Many of these have mauve flowers, and would probably do well in the stiff soil. A selection of these should include *A. puniceus* var. *pulcherrimus*, *A. cordifolius* in various shades, *A. acris*, *A. ericoides*, *A. Hon. Edith Gibbs*, *A. laevis Calliope*, *A. Novi-Belgii Andromeda*, *D. B. Crane*, *Edith*, *Evening Star*, *John Henslow*, *Robert Parker*, *Starlight*, and *superbus*. Besides these there are some mauve-coloured *Chrysanthemums*, one being *Marie Masse*; also *Dahlia Merckii*, growing about 4 feet high; *Erigeron speciosus superbus*, about 18 inches; and *Funkia sieboldiana*, with large glaucous leaves and spikes of mauve flowers. Some of the *Phloxes* have flowers of this shade, one being *Crepensoule*, while others very similar might be selected from a good nurseryman's catalogue. A plant with rather more blue, but suitable for the front, is *Scabiosa caucasica*, growing about 18 inches high, with large showy flowers. Among the annuals also could be found many with shades of colour that would mix well with mauve, one of the best being *Coosmos bipinnatus*, of which there are many varieties. Of white and pink-flowered plants there is plenty of variety, one of the best late-flowering being *Chrysanthemum uliginosum*, the tall-growing one. There is also the dwarf *C. lacustre*, with white flowers, while some of the *Salvias* would come in useful.

**GENTIAN (Hopeful).**—These are very uncertain in germinating, and it would be difficult to say when those mentioned would flower if sown now. Many will not germinate under a year, but if they come up this summer it would be quite two years or more before they flowered. A rich vegetable soil with plenty of moisture suits most of the Gentians, which require to be sown as soon as the seeds are ripe.

**WEEDS IN LAWN (Lancaster).**—We fear you can do but little at this time of year except by weeding, which is a tedious process, and, as you say, relaying is an undertaking. Next October you can soon get rid of the weed by having a long-toothed rake and pulling it out by the roots, taking care that every bit is removed. Then fill in the spaces made bare with good soil, and sow seed and well roll, repeating the latter several times during the winter.

**PLANTS FOR GARDEN IN PINE WOOD (Surrey).**—The various broad-leaved Flag Iris, known popularly as German Iris, should do well under the conditions named by you, while the Lilies likely to thrive are *Lilium croceum*, *Hansoni*, *longiflorum*, *Martagon*, *pyrenaicum*, *speciosum*, *thunbergianum* or *elegans*, *tigrinum*, and *umbellatum*. They can all be obtained at a cheap rate during the dormant season, and would, we should say, be likely to give you satisfaction.

**RULES AFTER FLOWERING (B. T. F.).**—After flowering, the pots containing the bulbs will be best in a cold frame or sheltered position where water can be given until the growth has fully ripened off. At that time you may either turn the pots on their sides for a time, or shake the bulbs out of the soil and place each kind separately in a pot with dry sand, subsequently placing the pots on a shelf in a dry, airy shed. Here they will be quite safe till September, when you may repot them in fresh soil for flowering another year. As the bulbs appear to have flowered in a cold house, the same roots will do service again next year.

**THE BLUE AFRICAN LILY (Surrey).**—*Agapanthus umbellatus* needs totally different treatment from the Black Lily, for it grows and flowers during the summer months. It forms a mass of thick, fleshy roots, hence during the winter but very little, if any, water is required, the plants being at that time kept free from frost. With the return of spring, repotting, if needed, should be carried out. Annual repotting is by no means necessary, for large plants can be kept in health for years without being disturbed at the roots. When growth recommences, the plants must have a good light position in the greenhouse, and in summer they may be stood out of doors, where they will flower usually in July.

## THE GREENHOUSE.

**THE BLACK LILY (Surrey).**—Well-ripened tubers of the Sacred Black Lily from Palestine rarely reach this country before July, but if yours are coming now they should be potted at once. The general treatment for tubers received in July is to pot them in a mixture of loam, leaf-mould, and sand. The body of the tuber must be 1 inch below the surface. After potting little water should be given till they start. A stage in an ordinary greenhouse is a very suitable place for them. Under greenhouse treatment the flowers of those potted in July and August develop in February and March, and in about a couple of months afterwards the leaves turn yellow and die off. Though plenty of water is needed when the plants are growing freely and the flowers developing, as soon as they commence to turn yellow the supply must be lessened, and finally discontinued. When quite dormant they should be stood in a spot fully exposed to the sun and kept dry, for upon a good baking at that season depends the future display of bloom. In July shake the tubers clear of the old soil and repot.

**HOW TO GROW AZALEAS (Miss Langton).**—Directly the Azaleas have done blooming the plants should be carefully looked over, and any straggling shoots shortened back in order to ensure a symmetrical specimen. At the same time any weak and exhausted twigs may be cut out. If repotting is needed, it should then be done; but if the roots are in good condition these plants will stand for years without fresh potting. Keep in the warmest part of the greenhouse, and frequently syringe the plants. This will lead to the production of numerous shoots, which will be in time terminated by flower-buds. By mid-summer, or soon after, the plants may be placed out of doors, as upon a thorough ripening of the wood depends the future display of bloom. When out of doors water freely, and syringe on the evenings of hot days. They must, of course, be removed under cover before the autumn frosts set in. To this last item exception may be taken in the case of *Azalea mollis*, which is quite hardy,

and consequently may be left out of doors till taken inside for flowering, say about the end of February.

**FORCING LILACS (D. M.).**—White Lilacs can be forced into bloom every winter provided they are not brought on in too much heat. Even then they cannot be depended upon to flower as well as those that are forced only in alternate years. To induce these plants to flower a second year out them back directly they have done blooming, thinning out any old and exhausted shoots, and cutting back the young growths to a couple of stout eyes. This will lead to the production of a neat, symmetrical plant. After this they must be given greenhouse protection till sharp frosts and cutting winds are past, when they should be plunged out of doors in an open, sunny spot. This will lead to short growth and a well-balanced specimen, with a reasonable amount of flower-buds. Of course, when out of doors they need to be watered just as carefully as before, a little weak liquid manure occasionally being helpful.

## ROSE GARDEN.

**MILDEW ON ROSES (J. Armytage Bailey).**—There is no doubt that the Rose shoot that you send is affected with mildew. If the plant is not badly affected, you would probably be able to eradicate the mildew by dusting the affected parts with flowers of sulphur. If, however, there are many shoots so badly attacked as the one sent, you should cut off those leaves which are badly diseased and burn them. Then spray the plant with sulphide of potassium, which is made by dissolving 1 oz. of sulphur of potassium (liver of sulphur) in a quart of hot water, diluting with 2½ gallons of water.

**ROSES WITH GREEN CENTRES (P. H. R.).**—The most common cause of this troublesome occurrence is said to be spring frosts. At pruning time, especially when the season is early, one is tempted to leave young promising growths, but, unfortunately, the frost comes and injures the embryo buds, with the result that when the flowers open they are malformed, like those you have sent. Another cause is over-feeding with chemical manures; whether this has been so or not in your case you will best know. You say that the Rose (which is of the variety *Reine Marie Henriette*) is growing on the chimney portion of the wall, and there is always a good fire except in the summer. This being the case, it is more than likely that the plant has suffered from dryness at the roots, and this check, together with that caused by the late frosts, would be quite sufficient to cause the flowers to come with green centres. Roses planted against a warm wall such as yours need copious supplies of water much earlier in the year than those which are growing out in open beds, for even when rain falls very little of it reaches the roots of plants trained against walls. You had better give your Rose tree a thorough soaking with clear water.

## FRUIT GARDEN.

**PEARS NOT FLOWERING (J. S. H.).**—The Pear when planted out in an orchard house, according to our experience, is one of the most unsatisfactory crops. One can never depend on securing good crops two years in succession. The chief reason is that the trees by the warmth of the house are induced to grow until too late in the autumn, thus depriving them of their long necessary season of rest. This fruit can be grown much more successfully in pots in an orchard house. The trees can then be removed out of doors in late summer and autumn, and the wood ripened and the trees rested under more natural conditions. We would suggest that the lights be removed from over your trees as early in the autumn as possible, and also partially root-prune the trees if they are inclined to grow vigorously. Vines.—“Madresfield Court, Black Hamburg, and Gros Maroc

have broken well; but are only showing light crops.” This is not a common experience among well-cultivated Vines; over-cropping for one or more years previously is the most frequent cause. The partial destruction of the foliage during the previous summer and autumn by red spider or some other insect pest is another. As regards the Gros Maroc, the extra strong growth of the canes would be inimical to the perfect ripening of the wood, and is often responsible for the lightness of crop in this variety. This may be so in your case; if so, a little heat in the pipes during the autumn would help much to remove this cause.

**LEAF CURL IN PRACHES (C. N.).**—The leaves you send are suffering from the leaf-curl disease, or blister as it is sometimes called. It is not caused by cold winds, although certain conditions of weather, such as cold winds or a sudden fall in the temperature after mild weather, aggravate the evil. The leaf-curl is a fungus which lives throughout the year on the shoots and smaller branches, pushing its growth into the young leaves as they are opening, and causing an abnormal growth of their tissues. You had better cut off all those leaves which are worst affected, and any shoots that are especially bad should be cut right off, taking care to burn everything removed. Spraying with Bordeaux mixture as the leaves are opening, and again in about three weeks' time, is useful in destroying any spores that may be carried from other trees. A certain amount of shelter to the trees in inclement weather when the leaves are opening is very useful, as it prevents a check to growth.

## MISCELLANEOUS.

**GARDENING COLLEGE (Hopeful).**—Reading University College is evidently the one you require. All information may be obtained on application.

**GARDENING DICTIONARY (Dick).**—We do not know of any book treating solely of the subjects named by you, but they are all dealt with in Nicholson's "Dictionary of Gardening," a most comprehensive and valuable work. From it we take the following reference to *Clematis*, concerning which you enquire: "*Cle'-mat-is*. Often called *Clem'-tis*, and sometimes *Clem'-at-is*; but the true pronunciation is plainly that given here, since the word is the Greek *Kēmatē*."

**TO KILL SLUGS (Lancaster).**—To prevent the fruits of Strawberries being eaten by slugs at this time of year is more difficult than earlier in the season, when stronger measures could be taken. Possibly the damage was done by mice. This you can soon ascertain, as the mice do not bore into the fruit, but merely gnaw all round it for the seeds, whereas slugs enter the fruit bodily. For mice you would do well to bait with break-back traps, using a likely morsel for bait such as cheese or stale meat. For slugs we would advise using some weak ammonia water. This applied down the rows will soon cause them to leave their haunts; but the mixture should be given at once before the plants are in bloom, and not over the plants. Another excellent plan before your fruits ripen is to dress the ground with soot or lime, but care must be taken to keep the fruits free of the dressing. Straw litter harbours slugs; it is far better to use long sweet grass out from a meadow.

**ARTIFICIAL MANURES (Taffy).**—In sending your question concerning artificial manures, you do not give us any idea as to the condition of your soil; but in any case the manure numbered 1 should be good for Peas and Beans. Evidently it contains a large percentage of lime, which is beneficial, and you could use it freely, say, at the rate of 5 lb. to a rod of land, dug in before the cropping, or in a small quantity in the trench. No. 2 is valuable for all crops in a growing state, especially those of a quick-growing nature, applied in showery weather; it contains a good deal of potash, and should be used sparingly at a time, but several times during the season. For such crops as *Seakale*, *Asparagus*, and others of strong growth, a liberal dressing, say, 1 cwt. to an acre, may be given in May, and another in July. No. 3 appears to be of a stronger nature, but not unlike No. 2. Without analysing we are unable to give the component parts of either of the manures.

**NAMES OF PLANTS.—A. K. L.**—*Anemone hortensis* (A. stellata).—*M. E. E.*—*Narcissus Leadii* Duchesne de Brabant.—*C. H.*—*Ornithogalum nutans*.—*M. deasy*.—*Prunus Padus* (Bird Cherry).—*Ozon*.—*Pieris* (*Andromeda*) *floribunda*.—*Colonia Smythæ*.—The names of the *Narcissi* are: 1, *Vesuvius*; 2, *Mary Anderson*; 3, *Incomparabilis Autocrat*.—*G. Rogerson*.—The name of the specimen sent is *Solanum pyracanthum*. It is easily raised from seed in a propagating pit where the heat is not allowed below 60° at night. The compost suitable is a mixture of loam, leaf-soil, and sand. The seedlings should be potted off as soon as they are large enough to handle, afterwards shifting on into larger pots as required. Ordinary greenhouse treatment will then suit this species afterwards.

## LEGAL POINTS.

**DAMAGE CAUSED BY RABBITS** (*Northumbrian*). Allotment holders are not entitled to enter adjoining property for the purpose of killing rabbits which cause a nuisance; their only remedy is to shoot or snare the rabbits when they come on their land.

**INTESTATE—WIFE'S PROPERTY** (*Smith*).—If the wife dies leaving no will the whole of her personal property passes to her husband absolutely. The wife's children take no part of the personal estate. If the wife has had a child by her husband who might have inherited her freehold property her husband will be entitled to the income of such property during his life. This being what is known as an estate by the curtesy. It is immaterial if the child only lived an hour.

**LANDLORD AND TENANT—DESERTED PREMISES** (*Bucks.*).—Where premises are deserted and where a half-year's rent is in arrear, and there is not sufficient distress upon the premises to make good such rent, the landlord may apply to the justices to obtain possession for him. The procedure is as follows: The justices attend and view the premises, and affix a notice in writing thereon stating on what day at a distance of not less than fourteen days they will return to take a second view of the premises. If upon the second view the tenant does not appear and pay the rent in arrear, the justices may put the landlord into possession, whereupon the lease or tenancy becomes void.

PRIZES FOR GARDENERS.  
MAY.

## VIOLAS (TUFTED PANSIES).

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best essay upon "How to Grow Violas."

A simple, straightforward statement is required, dealing with the propagation and general cultivation of the Tufted Pansy or Viola. Give the names of twelve varieties recommended especially for free flowering, describing the colour of each.

The essay (limited to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than May 31. Both amateur and professional gardeners may compete, but it is to be hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## SOCIETIES.

## EDINBURGH SPRING SHOW.

THE annual spring show of the Royal Caledonian Horticultural Society was held in the Waverley Market, Edinburgh, on the 9th and 10th inst. Although the exhibits looked few in number compared with those at the International Exhibition in September they compared very favourably with those on view at former spring shows. This was largely due to the increase in the number and size of the trade exhibits.

## NON-COMPETITIVE EXHIBITS.

Messrs. Dicksons and Co., Edinburgh, showed a very fine group of Roses, Amyrillids, Rhododendrons, and many other plants and flowers. They also exhibited a group of Carnations.

Mr. David W. Thomson, Edinburgh, set up a fine group of Roses, Azaleas, and other plants.

Messrs. R. B. Laird and Sons, Limited, Edinburgh, showed a large group of Rhododendrons, Maples, Azaleas, Spiræas, &c., a picturesque grotto forming a feature of the arrangement.

Mr. John Downie, Edinburgh, exhibited Rhododendrons, Maples, Azaleas, and other foliage and flowering plants.

Messrs. Cutbush and Sons, Highgate, London, exhibited a group of very fine Carnations of the American type, with such Roses as Mrs. F. W. Flight and the dwarf Polyantha Mrs. W. H. Cutbush.

Messrs. Barr and Son, King Street, Covent Garden, London, sent a well-arranged stand of May-flowering Tulips, Narcissus, and other spring flowers.

Messrs. Dobbie and Co., Rothesay, showed in a most effective manner their specialities of the season in the shape of Violas, Fancies, Auriculas, and zonal Pelargoniums.

Messrs. Cunningham, Fraser, and Co., Edinburgh, set up the finest display of alpine plants they have yet made in Edinburgh, arranged as on rockwork, and including many choice sorts. They also set up a large group of Maples, Rhododendrons, and other shrubs.

Irish Tulips were finely shown by Messrs. Hogg and Robertson of Dublin and Messrs. W. B. Hartland and Sons of Cork.

Mr. John Forbes, Hawick, showed hardy flowers, Carnations, Calladums, and other plants.

Mr. L. R. Russell, Richmond, exhibited an attractive stand of Clematis.

Messrs. Kent and Brydon, Darlington, showed alpine flowers on a rockery backed by Maples, conifers, &c. Gerbera Jamesoni was very fine here.

Messrs. Stormonth and Sons, Kirkbride, Cumberland, made an effective display of choice alpine plants, exhibited on a well-planned piece of rockwork.

Messrs. Storrer and Storrer, Glencorse and Dundee, made a brilliant display of Polyanthus, Primroses, Auriculas, and Primula obconica of an excellent strain.

Messrs. James Dickson and Sons, Edinburgh, showed a group of miscellaneous plants.

Messrs. J. and A. Glass, Edinburgh, exhibited Narcissus.

## COMPETITIVE CLASSES.

The competitive classes were rather less keenly contested than last year, but the quality in the leading classes showed no falling off.

The first prize for a group of plants was awarded to Mr. Adam Knight, gardener to Sir Wilfrid Lawson, Bart., M.P., Bury. The second prize went to Mr. J. E. Davis, gardener to Colonel Stewart Richardson, Ballathie, Stanley; third, Mr. G. Brown, gardener to Lord Young, Silverknowe, Edinburgh.

Orchids were generally good. For the group Mr. D. Mackay, Viewbank, Leaswade, was first, closely followed by Mr. T. Dewar, Craigcolman, Perth.

Plants were better, as a whole, than for some time, and Mr. M. McIntyre, gardener to Sir Charles Tennant, Bart., The Glen, Inverleithen, was again one of the leading prize-winners, together with Mr. A. McMillan (Douglas Castle), Mr. A. Knight (Brayton), and others.

Ferns were well shown in both the open and the amateur classes. The classes for cut flowers were generally well filled, and the blooms were generally fresh.

Vegetables formed a small section, and the class for a collection only brought out one competitor—Mr. D. Kidd, Carberry Tower, who was awarded first.

The other classes were of good average quality. The few fruit classes were not filled, and prizes were only awarded for Strawberries.

The attendance on the opening day was smaller than usual, owing to the wet morning. Mr. P. Murray Thomson and the council and its committees made excellent arrangements.

## SPECIAL AWARDS.

The following special awards were made at this show: PLAN OF WALLED-IN KITCHEN GARDEN (under-gardeners only).—First, James Webster, Milfield, Polmont; second, Frank Philip, Philipphang, Selkirk; third, Andrew Dickson, Alloa Park Gardens, Alloa.

NON-COMPETITIVE EXHIBITS (*Gold Medal*).—Dicksons and Co., Edinburgh.

*Silver-Gilt Medals*.—Barr and Sons; Cape of Good Hope Government; Cunningham, Fraser, and Co., Edinburgh; William Cutbush and Son, London; Hogg and Robertson, Dublin; R. B. Laird and Sons, Limited, Edinburgh; L. R. Russell, Richmond; and J. Stormonth and Son, Kirkbride.

*Silver Medals*.—Dobbie and Co., Rothesay; John Downie, Edinburgh; John Forbes, Hawick; J. and A. Glass, Edinburgh; Kent and Brydon, Darlington; and Storrer and Storrer, and Shanks and Son (for lawn mowers).

*Bronze Medal*.—W. B. Taylor, Hartland and Sons, Cork.

*First-class Certificate* to Mr. John Downie for new variegated Acer Pseudo-platanus.

*Awards of Merit* to Messrs. W. Cutbush and Son for Carnation General Kuroki, and dwarf Polyantha Rose Mrs. W. H. Cutbush.

The receipts for the two days were £273 against £255 last year.

## ROYAL GARDENERS' ORPHAN FUND.

THE annual dinner of this institution was held at the Hotel Cecil on Thursday, the 10th inst. J. Gurney Fowler, Esq., treasurer of the Royal Horticultural Society, being in the chair. The chairman was supported by Messrs. Harry J. Veitch, S. Woolley, Edward Sherwood, William Sherwood, Leonard Sutton, George Bunyard, George Paul, W. Y. Baker, Herbert J. Cutbush, and others. There were about 140 persons present; this the secretary announced to be a record attendance. The subscription list, over £1,000, was also a record one.

After the usual loyal toasts the chairman proposed the toast of "The Royal Gardeners' Orphan Fund." He first

made sympathetic reference to the recent death of Lord Mansfield, who so successfully filled the chair at the annual dinner last year. Mr. Gurney Fowler then went on to appeal for support to the funds of the Royal Gardeners' Orphan, saying that those who subscribed would be more than rewarded for their outlay by the gratitude of those whom they befriended. They all benefited by the work of gardeners, even if they did not all actually employ them. The gardener had to work hard in hot houses and out of doors in all weathers, so that he ran a great risk of injuring his health in following his occupation. Often when a gardener died his widow and children were left unprovided for, and it was then that this fund came to the aid of the widow and the fatherless children. The Royal Gardeners' Orphan Fund was an institution deserving their most cordial sympathy and support; grants were made only when the cases were proved to be in need of them, children were not put on the funds through favoritism. He would like to see the society's scope and usefulness increased. It ought to find supporters in all parts of the kingdom, for deserving orphans were placed on the fund without regard to the county whence they came, and the society ought to receive its support from a correspondingly wide district.

Mr. Edward Sherwood, treasurer of the Royal Gardeners' Orphan Fund, who replied to the toast, said the subscriptions received were not adequate to the demands made upon the fund. There were now twenty-one orphans waiting admission, sixteen were receiving half-a-crown a week meanwhile. He was sure that if gardeners read the rules of this institution more would subscribe to it. He would appeal to young gardeners especially. He suggested that during January they should put by 2d. a week, and a penny a week for the rest of the year for a subscription to the fund.

The toast of "Gardeners and Gardening" was proposed by Mr. S. Woolley in a long and eloquent speech, in which he dwelt upon the rise and progress of gardening during the last thirty or forty years.

Mr. George Bunyard (Worshipful Master of the Fruiterers' Company) briefly replied.

Mr. William H. Cutbush gave the toast of "The Visitors," mentioning the fact that the Master of the Fruiterers' and the Master of the Gardeners' Company were present.

The toast of "The Chairman" was proposed by Mr. H. B. May. Mr. W. Bates gave the toast of "The Press," to which Mr. C. H. Curtis responded.

The tables were decorated with flowers through the kindness of several gentlemen, and Messrs. James Veitch and Sons, Limited, Chelsea, had arranged a magnificent bank of plants at one end of the room.

The following are some of the chief donations announced by the secretary, Mr. Brian Wynne: Messrs. J. Gurney Fowler, £50; Hurst and Sons, 50 guineas; Leonard Sutton, £50; Rothschild and Sons, 25 guineas; James Veitch and Sons, Limited, 25 guineas; George H. Cutbush, £27 16s.; G. Reynolds, £45 5s.; Edwin L. Hillier, £20; Francis Robinson, £20 10s.; Barr and Sons, £10 10s.; J. F. McLeod, £10 10s.; R. Hooper Pearson, £14; J. R. Roberts, £10 10s.; F. Noakes, £10 10s.; Baron Schröder, £10 10s.; Mr. and Mrs. H. J. Veitch, £10 10s.; G. Caselton, £11 14s. 6d.; Whitpaine Nutting, £11; Mrs. W. G. Head, £10; T. W. Sanders, £13; John Lyne, £7 12s.; David W. Thomson, £6 15s.; T. A. Morris, £7 7s.; T. K. Ingram, £6 16s. 6d.; F. C. Fear, £7 2s.; J. T. Anderson and Sons, Thames Bank Iron Company, F. Wellealey, G. F. Morris, H. B. May, Hugh Low and Co., R. A. Dixon, and W. Howe, each 5 guineas; O. O. Wrigley, Cutbush and Son, and W. P. Thomson Corbie, each £5; J. Vert, £5 2s.; Covent Garden Friends, £200 (including Edmund Roachford, £10; John Roachford, £5 5s.; J. Sweet, £5 5s.; G. W. Dennis, £5 5s.; George Munro, jun., £5; G. Munro, Limited, £5 5s.; Joseph Roachford, £5; W. T. McDougal, £5; C. F. Kinnell and Co., £5 5s.; J. R. Felton, £5 5s.).

## GUILDFORD AND DISTRICT GARDENERS' ASSOCIATION.

THE Guildford and District Gardeners' Association held their fortnightly meeting on the 1st inst. Mr. Edwin Beckett, from Aldenham House, Epsom, delivered a most interesting lecture (illustrated by lantern slides) on "Vegetables for Exhibition." The meeting was well attended, and an appreciative gathering listened intently to the very comprehensive and instructive remarks of the lecturer, who briefly explained the cultural details of the majority of vegetables to be seen in the collection at the leading shows. A certificate of merit was awarded to Mr. J. Gossley, Sutton Place, for plants of *Cineraria stellata* and *Cyclamen*; also to Mr. Nicholls, Marrow Grange, for well grown plants of *Calla elliptica*. The members of the association paid a visit on the 25th ult. to Sandhurst Lodge, Wokingham, the residence of Sir William Farrer. The party journeyed from Guildford to Wellington College Station by train, where they were met by Mr. Townsend, the head-gardener, who conducted them round the extensive and well-kept grounds. Keen interest was manifested in the natural beauty of this very interesting spot. To conclude a very pleasant outing tea was taken at the Wellington College Hotel, where before separating the chairman, Mr. H. Cook, proposed a hearty vote of thanks to Sir William Farrer and to Mr. Townsend. The annual summer show in connexion with the association will be held on July 18.

## CHARLTON KINGS HORTICULTURAL SOCIETY.

THE annual show will be held at Lilliebrook on Wednesday, August 22. Entries close on August 15. Full particulars and a copy of the schedule may be had from Mr. G. W. S. Brewer, Crenside, Charlton Kings, Cheltenham.



## ROYAL HORTICULTURAL SOCIETY.

## ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. R. Brooman White, James O'Brien, W. A. Biney, de B. Crowsay, W. Bolton, H. Ballantine, H. G. Alexander, H. A. Tracy, W. H. Young, H. G. Morris, W. H. White, Arthur Dye, G. F. Moore, A. McBean, E. Ashworth, Walter Cobb, E. G. Thwaites, Francis Wellesley, W. Boral, H. Little, Harry J. Veitch, Jeremiah Colman, and C. J. Lucas.

Messrs. James Cypher and Son, Cheltenham, set up a very showy group of Orchids, *Lælia purpurata* (finely flowered), *Odontoglossum Pescatorei* and *O. crispum*, *Miltonia vexillaria*, *Cattleya Skinneri*, *Lælio-Cattleya* G. S. Ball, *Cattleya Skinneri* alba, various *Dendrobiums*, *Cypripediums*, and other Orchids being included. Silver Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited *Cattleyas* and other Orchids in variety. *Cattleya Skinneri* was represented by a fine plant. *C. Schröderi*, *C. lauroconcha* alba, *C. Mossii*, *Lælia purpurata* Davisii, *O. schilleriana*, and *Dendrobium Bensoni* were all finely in flower. Silver Bankian medal.

H. S. Goodson, Esq., West Hill, Putney (gardener, Mr. Day), exhibited a large group of Orchids that contained some good plants of *Cymbidiums*, *Cattleyas*, and *Odontoglossums* in variety. *Miltonia vexillaria*, too, was well flowered. Silver Flora medal.

Sir Trevor Lawrence, Bart., Dorking (gardener, Mr. W. H. White), showed a small group of very showy *Epidendrums*, including the rich orange-red *E. Boundii*, *E. montanum*, *E. elongatum*, *E. Veitchii*, *E. Elliotti*, *E. Schomburgkii*, *E. radicans*, and others. Sir Trevor Lawrence also showed an interesting collection of *Madevillas*. Silver Flora medal.

C. J. Lucas, Esq., Warnham Court, Horsham (gardener, Mr. Duncan), showed a small group of beautiful *Odontoglossums*, and a few *Dendrobiums* and *Lælio-Cattleyas*. Silver Bankian medal.

Some remarkably fine *Odontoglossums* were shown by H. T. Pitt, Esq., Stamford Hill. *O. crispum* Pittii was represented by a plant bearing two strong racemes of magnificent flowers. *O. c. pittianum* and *O. c. capartianum* were both well shown. The raceme of *O. c. pittianum* bore thirteen fine flowers. The others were *O. c. ashworthianum*, almost altogether red; and *O. c. Magnum Bonum* a large white, with a few large spots. Silver-gilt Flora medal.

The first diploma for *Lælia purpurata* variety was awarded to L. p. alba, shown by H. L. Blachoffheim, Esq., Warren House, Stanmore (gardener, Mr. Ellis).

*Miltonia vexillaria superba*, from Jeremiah Colman, Esq., Gatton Park, Reigate (gardener, Mr. W. P. Bond), won the first diploma in its section.

A cultural commendation was awarded to *Odontoglossum crispum* Westonbirt variety, bearing three magnificent racemes. Shown by Major Holford, C.I.E., Westonbirt (Orchid grower, Mr. Alexander).

*Calogyne brymerianum* (C. dayana x C. Lowii) was shown by Colonel Brymer, Ilington House, Dorchester (gardener, Mr. J. Powell).

## NEW ORCHIDS.

*Cattleya intermedia White Queen*.—A large and beautiful white-flowered form; there is a tinge of pale primrose at the throat entrance. Shown by F. Wellesley, Esq., Westfield, Woking (gardener, Mr. W. Hopkins).

*Odontoglossum crispum aureum Laburnum*.—A large and striking flower. The sepals are primrose and pale purple. The petals are primrose, while the lip is a beautiful canary yellow. The plant shown bore a fine raceme. From Messrs. James McBean, Cookbridge, Sussex.

*Cypripedium Miss Louisa Fowler superbum*.—This handsome *Cypripedium* is of attractive form with dull red pouch and petals, the latter being spotted with dark red; the dorsal sepal is green with a broad primrose-coloured margin, the green being heavily blotched and spotted with red brown. Shown by J. Gurney Fowler, Esq., South Woodford (gardener, Mr. J. Davis).

## FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. J. Green, T. W. Turner, C. J. Salter, C. T. Drury, George Nicholson, J. W. Barr, J. F. McLeod, R. Hooper Pearson, Charles E. Pearson, A. R. Goodwin, C. Bick, C. Jeffries, George Gordon, W. Bain, James Douglas, Charles E. Shea, E. T. Cook, Charles Dixon, W. P. Thomson, E. H. Jenkins, William Cuthbertson, W. J. James, George Paul, Edward Mawley, J. Jennings, James Hudson, and R. C. Notcutt.

Mr. James Douglas, Great Bookham, again showed a very beautiful lot of alpine and show *Auriculas*. For so late in the season the flowers were superb, and in many instances would have done credit to an exhibition a month earlier. It is not possible to give names when so great a variety is displayed, but our admiration for this exhibit is in no degree lessened thereby. Silver-gilt Flora medal.

A very brilliant array of *Cinerarias* came from Messrs. Carter and Co., Holborn, the extensive bank of these flowers containing a large number of varieties of the highest merit. We were particularly struck with the fine blue shades and those of pink tints. The "Star" section made a very pleasing and effective display, and their light and elegant blossoms were very attractive. Silver Flora medal.

Sweet Peas from Mr. Robert Sydenham, Birmingham, were very good, fresh looking, and fragrant. Countess Cadogan, dark blue; Flora Norton, soft azure blue; Mrs. G. Higginson syn. Gladys Deal, soft lavender blue, and others were pleasing and good. Silver Flora medal.

Messrs. R. and G. Cuthbert, Southgate, staged groups of Ivy-leaved *Pelargoniums* in a most effective manner, some

twenty of the more distinct sorts being presented to view. We select *Beauté Suprême* and *Esplendissant*, pink and carles scarlet respectively, as among the finest of the group. Silver Bankian medal.

Begonias of the tuberous rooted section from Messrs. T. S. Ware, Limited, Feltham, were very fine, and it is doubtful if finer flowers will be seen this season. Carnations, too, were also in good condition. In addition there were many fine masses of *Auriculas*. Other good hardy plants were shown in large numbers. Silver-gilt Bankian medal.

Messrs. J. Peed and Son, West Norwood, made a display of *Acer*, *Clematis*, and *Ceanothus*, the grouping and general effect leaving nothing to be desired. Silver Flora medal.

A remarkable example of *Asparagus Sprengeri*, with trails 6 feet or 7 feet long and full of blossoms, created quite an impression. This handsome example is said to be but eighteen months old, and therefore its growth is the more remarkable. The plant came from Mr. Charles Turner, Royal Nurseries, Slough.

Messrs. G. and A. Clark, Limited, The Nurseries, Dover, showed hardy plants in variety as *Trollius*, early flag Irises, *Tiarella cordifolia*, *Pyrethrum*, *Geums*, and the like. Bronze Flora Medal.

A very fine group of *Schizanthus*, hybrids of *S. grandiflora*, came from Messrs. Veitch and Sons, Limited, Chelsea. The plants, much dwarfier in habit, and with larger individual blossoms, show some considerable improvement upon the older type, while presenting a very remarkable variety from the colour standpoint. Silver Bankian medal.

A charming lot of hardy Ferns—*Polystichums*, *Athyriums*, *Lastreas*, &c., came from Mr. R. B. May, Edmonton. Some of the more beautiful and heavily-crested *Scolopendriums* were also well represented. Some *Panicles* and the richly-coloured *Loebelia Waverley* Blue were also shown. Silver-gilt Bankian medal.

From Mr. C. G. van Tubergen, jun., H. arlem, Holland, came a very delightful lot of the new *Regalis-cyclis* Irises, a race of much value in the hardy plant garden. *Thalia*, white and purple; *Aspasia*, purple and black; *Charon*, gold and bronze, a lovely flower; and *Psyche*, rosy lilac on a grey ground, were some of the best and most distinct.

Messrs. Sutton and Sons, Reading, contributed several distinct forms of *Myosotis*, as *Gem* (pink), *Star of Love* (fine blue), and *Royal Blue* (a fine rich blue), which were most effective.

Messrs. Peed and Sons, West Norwood, had out *Gloxinias*, a collection of alpine in pans, &c.

Mr. A. J. Young, Stone House, Putney (gardener, Mr. H. Street), showed a fine group of well-grown *Cinerarias*, in which the Star section largely predominated. Bronze Bankian medal.

Well-grown plants of *Spiraea astilboides* var. *Queen Wilhelmina* came from Mr. F. Goldring, Holmehurst, Lewisham.

A magnificent group of *Rhododendron Pink Pearl* was shown by Messrs. J. Waterer and Sons, Limited, Bagshot. The plants were simply superb, the trusses of flowers of great size and delicate beauty. The group was one of the most admired in the exhibition. A plant of *White Pearl* was also shown. Silver Flora medal.

*Asclepias* of medium size, trained as pyramids, came from Mr. Charles Turner, Slough, the well-flowered plants reminding one of the older exhibitions of trained plants. A fine background of Ivy *Pelargonium* Hon. Mrs. Boyle, came from the same source. Silver Flora medal.

Tree Carnations of the American type came from Messrs. Hugh Low and Co., Enfield, who exhibited these flowers very finely. *Malmals* were also shown, together with many grand flowers of *Roses*.

An interesting exhibit of hardy things from Mr. M. Priehard, Christchurch, included good forms of *Scilla campanulata*, *Primula Sieboldi*, some good *Geums*, and *Alyssum saxatile citrinum*, Irises, *Darwin Tulips*, and other showy and useful plants. Bronze Flora medal.

*Trollius* and a splendid batch of *Phlox* Laphami Perry's variety formed the chief contents of an exhibit from Mr. Amos Perry, Winchmore Hill. The *Phlox* is especially valuable at the present time, and deserves to be freely grown. Bronze Flora medal.

Messrs. R. Veitch and Son, Exeter, contributed hardy shrubs, *Rhododendrons*, *Abutilon vitifolium*, *Primula japonica* in several distinct shades, *Solanum crispum*, *Potentilla dahurica* (a very charming plant, with white flowers), *Sutherlandia frutescens* (with scarlet flowers), *Edwardia tetraptera* McNabiana, *E. t. grandiflora*, *Rubus deliciosus*, *Dianthus*, &c., a most interesting group of rare plants.

The group of alpine plants from the Guildford Hardy Plant Nursery (Mr. A. Upton), contained many choice things. *Veronica hulkensis*, *V. Fairfieldi*, *Oxalis enneaphylla*, *Gentiana verna*, *Cheiranthus Allioni*, alpine *Phloxes*, *Iberis Little Gem*, &c. Bronze Flora medal.

A highly interesting lot of cut shrubs came from Lord Aldenham, Eistree (gardener, Mr. E. Beckett), the group containing representatives of most flowering shrubs at the present time. *Barberis*, *Rosemary*, *Pyrus*, *Prunus*, *Spiraea*, *Magnolia*, *Kalmia*, and many more were noted. Silver-gilt Bankian medal.

Superb *Roses* in pots came from Messrs. B. E. Cant and Sons, The Old Rose Gardens, Colchester. Show, climbing, garden, and other *Roses* were in profusion, the Yellow and Austrian Copper *Briars* being conspicuous. Silver-gilt Bankian medal.

Some good *Calceolarias* were shown by Mr. C. S. Layton, Harrow Weald. Bronze Bankian medal.

The new pink-flowered climbing *Rose Kathleen* was largely shown by Messrs. William Paul and Son, Waltham Cross the plants being most profusely flowered.

A fine *Clematis* called *Lady Northbrook*, with deep blue flowers, came from Messrs. George Jackman and Sons, Woking.

An interesting assortment of *Rhododendrons* and other hardy plants came from the garden of Sir Edmund Loder, Bart., Horsham (gardener, Mr. W. A. Cook). A fine bush of *Ulex europæus* fl.-pl., the pretty *Limonia trifoliata*, *Fendlera rupicola*, with starchy white flowers; *Caltha polypetala*, and *Grevillea sulphurea* were among the more rare things in this valuable exhibit. Silver-gilt Flora medal.

Hardy alpine and other plants were largely shown by Messrs. George Banyard and Co., Maidstone, who also staged some fine *Rhododendrons*. Silver Bankian medal.

Messrs. Dobbie and Co., Rothesay, brought a variety of *Primula Sieboldi*, together with a splendid lot of *Panicles* and *Violas*. We can only say of these that in freshness, size, and form they were beyond all praise. Silver Flora medal.

Messrs. William Cutbush and Sons, Highgate, exhibited the climbing *Rose Mrs. F. W. Flight* in splendid form in company with *Heaths* and other plants. Silver Bankian medal.

A very interesting lot of alpine came from the Craven Nursery, Clapham, Yorks. In this group choice plants were a feature. A really superb lot of *Ericichium nanum* was among many good things.

*Anemones* were finely shown by Mr. H. Lawes, Bridge-water.

The Messrs. Hopkins again showed a varied assortment of alpine and other hardy things. Bronze Bankian medal.

Messrs. Paul and Son, Old Nurseries, Chessington, contributed a few flowering shrubs in variety, of which *Asplen Pink Beauty* was very pretty. They also exhibited a collection of *Tulips*.

Decorative and zonal *Pelargoniums* were in superb form from Messrs. Cannell and Sons, Swanley, who had also a batch of *Rose Philadelphia Rambler*. Silver Flora medal.

The *Roses* from Mr. G. Mount, Canterbury, were very good, *Liber*, *Mrs. Sharmar Crawford*, *Ulrich Brunner*, *Catherine Mermet*, *Captain Hayward*, &c., being shown in the finest condition. Silver-gilt Flora medal.

Mr. G. Renthle, Keaton, Kent, showed *Tulips*, many choice alpine, *Rhododendrons*, and *Cushion Irises* in variety.

Messrs. Gilbert and Sons, Bourne, Lincs, had a table of *Anemones*, *Tulips*, and other early flowers in variety.

Messrs. W. and J. Brown, Stamford, had finely-flowered *Verbenas* and *Heliotropes*, with *Cactus Pelargonium*.

## NEW PLANTS.

*Devallia solida superba*.—This is a valuable addition to good Ferns. The spreading glossy fronds are of very firm texture, and, generally, the plant impresses by its freedom of growth and good development. From Mr. H. B. May, Edmonton. First-class certificate.

*Dianthus Spencer Dickham*.—A lovely little hybrid alpine Pink, having, we believe, *D. deltoidea* and *D. alpinus* as its parents. The rose-coloured flowers are about three-quarters of an inch across, and the plant clinches high. From Messrs. E. Veitch and Co., Exeter. Award of merit.

*Iris Beccia*.—Standards rosy lilac to purple, falls bronze, with blackish lines to centre, and bordered and reticulated with cream or cream yellow. From Mr. C. G. van Tubergen, jun., Holland. Award of merit.

*Rhododendron Mrs. E. C. Stirling*.—A variety or hybrid of much promise; the flowers are of a soft pink hue and the trusses of good size. From Messrs. J. Waterer and Sons, Limited, Bagshot. Award of merit.

\* The report of the Narcissus and Fruit and Vegetable Committees are held over until next week.

**Silver wedding of Mr. and Mrs. Arthur W. Sutton.**—A silver centrepiece, subscribed for by the whole staff at the Reading seed establishment, was recently presented to Mr. and Mrs. Arthur W. Sutton upon the occasion of the twenty-fifth anniversary of their wedding-day. Mr. Living, speaking on behalf of the whole staff, said that as the date of their silver wedding drew near there was a spontaneous wish from all that some token of their friendly feeling should be presented to Mr. and Mrs. Sutton. Mr. Arthur Sutton, in rising to express the thanks of Mrs. Sutton and himself, said he was quite unable to express all he felt, but he would like to say that they sincerely appreciated the gift, and he wished to thank every one of them for this renewed expression of their regard.

## CATALOGUES RECEIVED.

*General Catalogue of Plants*.—H. Cannell and Sons, Swanley, Kent.

*Water Plants*.—Amos Perry, Winchmore Hill, N.; R. W. Wallace and Co., Colchester.

**Death of Mrs. May.**—We are very sorry to hear at the moment of going to press of the sudden death of Mrs. May, wife of Mr. H. B. May, of the Dyson's Lane Nurseries, Edmonton. Mr. May is a member of the council of the Royal Horticultural Society.

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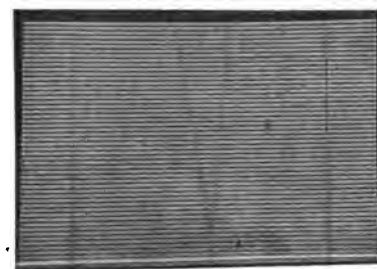
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sizes, 1/- 20yds. (square).—EVANS, 14, Beresford Rd., Lowestoft.

"**Cassell's Dictionary of Gardening**" is a useful illustrated encyclopædia of practical horticulture for all classes, edited by Mr. W. P. Wright. It is published in fortnightly parts, price 7d. each net. The work contains coloured plates and many other illustrations.

"**Kew Hand List**" of **Ferns and Fern Allies**.—The second edition of this, one of the series of most useful lists of plants cultivated in the Royal Gardens, Kew, is published. The first edition, which was issued in 1895, has for some time been exhausted. The present edition enumerates the species and varieties now in cultivation at Kew. The species acquired since 1895 are included; those not now grown at Kew have been omitted. From a table given in the preface to the second edition, it appears that 46 per cent. of collected Ferns come from tropical America. This Hand List may be had from the Royal Gardens, Kew, price 5s.

## OBITUARY.

### JOHANNES VON EHREN.

THE German gardening papers announce the death, at the age of seventy-four, of M. Johannes von Ehren, a famous nurseryman of Meinsteden, Schleswig-Holstein. When a youth he spent some years in England, and for some time worked in the then famous London nurseries of Messrs. Henderson and Son. Upon leaving England he worked in the gardens of M. Alphonse de Rothschild, at Ferrières-en-Brie, near Paris, a garden probably more cosmopolitan in the character of its employes than any other on the

Continent. Returning to Germany he, after a time, started a nursery of trees and shrubs. For conifers especially he soon attained a wide reputation, and exhibited the remarkably fine specimens he grew at many horticultural shows.

### JOHN BARRON.

WE regret to announce the death of Mr. John Barron, of the firm of William Barron and Son, landscape gardeners and nurserymen, Elvaston Nurseries, Borrowash, near Derby. Mr. John Barron was born on June 8, 1844, at Elvaston, where at that time his father, Mr. William Barron, was agent and gardener for the fourth Earl of Harrington, and was at that time the greatest living authority on coniferous plants and the removal of large trees. In 1851 Mr. Barron began business as landscape gardener and nurseryman, and in 1865 was joined by his son, who had been studying landscape gardening abroad. In 1886 Mr. Barron, sen., retired from the business, and from this date Mr. John Barron carried it on until his death. Mr. John Barron, like his father, has been a successful transplantor of large trees, the most remarkable of which—since he, in conjunction with his father, successfully moved the Buckland Yew near Dover (which was 1,100 years old and mentioned in Domesday Book)—was the "John Knox" Yew at Langbank, Scotland. Under this tree it was that John Knox administered his first sacraments. In the way of laying out parks, &c. (public and private) perhaps his most notable work was the Abbey Park, Leicester, which was transformed from a bog to one of the most up-to-date public parks out of London. Mr. John Barron was also well known

in the agricultural world, and besides being a keen judge and breeder of shire horses his name was generally in the prize list at one of the leading shows. Whether it was a champion of all England pedigree shorthorn cow or a champion of all England polo pony it did not much matter. His chief work, however, and perhaps that through which he became most widely known, was the breeding and exporting of large white Yorkshire pigs. He was one of the first to take up this work, and in later years some of his best animals have realised anything from 40 guineas to 100 guineas each. His opinion as a judge was always in great demand at the leading shows. It was Mr. John Barron and a few intimate friends who founded in the year 1878 the Nottinghamshire Agricultural Society, for which he remained secretary for many years.

### GEORGE H. ELLWANGER.

WE regret to hear of the death of Mr. George Herman Ellwanger, of the well-known firm of Ellwanger and Barry, Rochester, New York, who died recently after an illness of several months. Mr. Ellwanger was born in Rochester in 1848. The *American Florist* says: "Few books have done as much to promote a knowledge and love of horticulture as the 'Garden's Story,' by George H. Ellwanger, and no book, it has been justly said, has taught its lesson so delightfully. And with good reason, in that the author brought to his subject a long and practical experience, a fine and cultivated taste, and the pen of a ready writer."

\* \* The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 6d.

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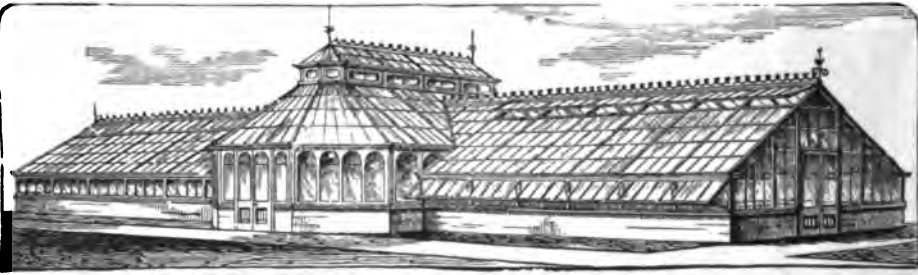


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# THE GARDEN.

No. 1801.—Vol. LXIX.

MAY 26, 1906.

## THE PRUNING OF FLOWERING TREES AND SHRUBS.

**T**HIS is a subject which receives less than its proper share of notice, and too often, through ignorance of the requirements of various things, their true value is not apparent.

For some subjects very little pruning is necessary, others require well thinning almost every year, others again must be cut well back annually, while others require little more than the removal of the old flower-heads.

Occasionally, certain shrubs are grown either for foliage effect in summer or for coloured stems in winter, and these are always better when cut back annually.

In the following lists an attempt has been made to group together the various things which require certain methods of pruning under separate headings. In the case of those which require little or no pruning, it must be understood that this refers to the time when they are occupying permanent positions. Before this, pruning is necessary to give shape to the plants and a good foundation afterwards.

The following require no pruning other than the removal of a branch or two here and there for shaping purposes :

*Egle septaria*  
*Amelanchier canadensis*  
    (Snowy Mesquit)  
*Andromeda polifolia*  
*Aplopappus ericoides*  
*Arbutus*, all species  
*Arctostaphylos*, all species  
*Astragalus Tracanthus*  
*Asara microphylla*  
*Berberis*, most species and  
    vars  
*Bruckenthalia spiculifolia*  
*Bryanthus*, all species  
*Calophaca wolgarica*  
*Calycanthus (Allspice)*, all  
    species  
*Camellia japonica*  
*Caragana*, all species  
*Carmichaelia*, all species  
*Carpenteria californica*  
*Cassandra calyculata*  
*Cassiope*, all species  
*Catalpa (Indian Bean Tree)*,  
    when old  
*Ceroidiphyllum japonicum*  
*Cercis Siliquastrum (Judas*  
    *Tree)*  
*Chilomenes corymbifolia*  
*Chionanthus (Fringe Tree)*,  
    all species  
*Choisya ternata (Mexican*  
    *Orange Flower)*  
*Cistus*, all species  
*Clethra*, all species  
*Colletia cruciata*  
*Cornus (Dogwood)*, when  
    grown as specimen plants  
*Corylopsis*, all species  
*Cotoneaster*, all

*Daphne*, all  
*Daphniphyllum macro-*  
    *podum*  
*Desfontainia spinosa*  
*Dicra palustris*  
*Elaeagnus*, all species  
*Empetrum nigrum*  
*Eukianthus*, all species  
*Ephedra*, all  
*Escallonia*, may be left un-  
    pruned for several years  
*Eurochorda (Pearl Bush)*  
    *Alberti and grandiflora*  
*Eucryphia pinnatifolia*  
*Fothergilla Gardeni*  
*Fremontia californica*  
*Garrya elliptica*, when  
    grown as a bush in the  
    open  
*Gaultheria Shallon*  
*Griselinia littoralis*  
*Halesia (Snowdrop Tree)*, all  
    species  
*Hamamelis (Wych Hazel)*,  
    all species  
*Hibiscus (Syrian Mallow)*  
    *syriacus*  
*Hippophaë rhamnoides (Sea*  
    *Buckthorn)*  
*Hymenanthera crassifolia*  
*Jamesia americana*  
*Kalmia*, all species  
*Laburnum*, all  
*Ledum*, all  
*Lelophyllum buxifolium*  
*Leucothoe*, all species  
*Ligustrum (Privet)*, all  
    species

*Lonicera (Honeyuckle)*,  
    all species except the  
    climbers  
*Lycium*, all species  
*Magnolia*, all species  
*Menziesia globularis*  
*Mitchella composita*  
*Molikia petraea*  
*Myrica*, all species  
*Notospartium Carmichaeliae*  
*Nuttallia cerasifloris*  
    *(Osoberry)*  
*Ononis aragonensis*  
*Osmanthus*, all  
*Oxydendron arboreum*  
*Paliurus australis*  
*Parrotia*, both species

*Pernettya mucronata*  
*Phillyrea*, all  
*Pieris*, all species  
*Potentilla fruticosa*  
*Prunus*, most species  
*Rhododendron*  
*Rosmarinus officinalis*  
    *(Rosemary)*  
*Skimmia*, all  
*Spiraea arguta*  
*Stachyurus pinnocx*  
*Stuartia*, all  
*Styrax*, all  
*Tamarix*, most species  
*Vaccinium*, all species  
*Veronica*, all species  
*Xanthorrhiza apifolia*

Requiring the previous year's wood shortened, but not cutting back to older wood. The majority must be pruned after flowering, but those marked \* should be done in February :

*Cytisus (Broom) albus*  
    " *biflorus*  
    " *capitatus*  
    " *purgans*  
    " *scoopatus* and vars.  
*Genista (Rock Broom)*  
    *tinctoria\**

*Genista tinctoria* var.  
    *elatior\**  
*Ononis fruticosa\**  
    " *rotundifolia\**  
*Spartium junceum (Spanish*  
    *Broom)*

Requiring the previous year's wood spurred back to within a few eyes of the old wood when not required for furnishing the plants, removing old branches altogether where strong young ones can be made to take their places. The different lengths these new ones are to be left must be decided on by the operator. Very weak shoots should be removed altogether. The work must be done in February or March, or as soon as the flowers are over in April :

*Amorpha canescens*  
    " *fruticosa*  
*Buddleia japonica*  
*B. variabilis* and varieties  
*Ceanothus*, all the garden  
    varieties of *C. azareus*  
    and *C. americanus*  
*Coultas arborescens* (this  
    does not require hard  
    pruning every year)  
*Cytisus nigricans*  
*Forsythia suspensa*  
*Hedysarum multiflorum*  
*Hydrangea paniculata* var.  
    *grandiflora*  
*Hypericum*, most species  
*Indigofera gerardiana*  
*Itea virginica*  
*Jasminum nudiflorum*  
    (winter-flowering *Jas-*  
    *mine)*

*Lespedeza*, all must be cut  
    well down  
*Myricaria germanica*  
*Passiflora cerulea (Passion*  
    *Flower)*  
*Prunus triloba* var. *fl.-pl.*  
*Spiraea Aitchisoni*  
    " *betulifolia*  
    " *Douglasii* and varie-  
    *ties*  
    " *japonica* and varie-  
    *ties*  
    " *hindleyana*  
    " *Menziesii*  
    " *nobleana*  
    " *pumila* and varieties  
    " *salicifolia* and varie-  
    *ties*

*Tamarix Pallasi* var. *rosea*  
*Vitis (Vine)*, all species

To have as much old wood as possible removed as soon as the blossoms are over, to make room for strong shoots for the following year's flowers :

*Cytisus leucanthus*  
    " *purpureus* and  
    varieties  
    " *versicolor*  
*Deutzia gracilis*  
*Kerria japonica (Jew's*  
    *Mallow)* and the double-  
    flowered variety

*Philadelphus (Mock*  
    *Orange)* *Lemoinei* and  
    varieties  
*Prunus japonica* var. *fl.-pl.*,  
    once in three years  
*Wistaria chinensis*, to be  
    kept spurred in

Requiring to be well thinned once a year, but not to have the young wood shortened

back except for shaping purposes. The branches removed should be cut clean away and no snags left :

*Abelia chinensis*  
*Buddleia globosa*  
    " *orapa*  
*Cornus*, most species when  
    in shrubberies where they  
    have not much room  
*Crataegus (Thorn)*, most  
    species  
*Deutzia*, most species  
*Diervilla*, all species and  
    varieties  
*Forsythia intermedia*  
    " *viridissima*  
    The branches of these  
    two may be shortened  
    a little  
*Lonicera*, all climbing  
    species

*Neillia*, all species  
*Philadelphus*, most species  
*Ribes*, most species  
*Rosa*, most species and  
    rambling varieties  
*Rubus (Rambles) delicio-*  
    *sus*  
    " *nuttanus*  
    " *odoratus*  
    " *spectabilis*  
*Spiraea*, most of the early-  
    flowering sorts  
*Syringa (Lilac)*, young  
    shoots may be well  
    thinned out  
*Viburnum (Guelder Rose)*,  
    most deciduous species

Requiring old wood on which flowers were borne last year removed entirely, but not shortening more than necessary the young wood : *Rubus* belonging to the Blackberry and Raspberry sections, and in the case of *Roses* the Rambler set typified by *Crimson Rambler*.

Requiring to be cut to the ground annually when grown for special purposes, such as coloured bark for winter effect or large leaves for ornamental work in summer. This pruning may be done about the end of March :

*Acer (Maple) Negundo* and  
    all varieties  
*Alnus (Tree of Heaven)*  
    *glandulosa*  
*A. g. var. pendula*  
*Aralia chinensis albo-*  
    *marginata*  
    *A. c. aureo-marginata*  
*Broussonetia papyrifera*  
    and varieties  
*Cornus alba* and varieties  
    " *stolonifera*  
*Koeleria paniculata*  
*Lycostera formosa*

*Neillia opulifolia* var. *lutes*  
*Paulownia imperialis*  
*Rhus glabra* and variety  
    " *laciniata*  
    " *Osbeckii*  
    " *typhina*  
*Salix (Willow) alba* var.  
    *britzensis*  
    *S. a. var. vitellina*  
*Sambucus*, the various  
    golden-leaved forms  
*Symphoricarpos racemosus*  
    *(Snowberry)*  
*Tamarix*, all species

Requiring the removal of old flower-heads as soon as the flowers are over :

*Calluna vulgaris (Common*  
    *Ling)*  
*Rhododendrons*, all except  
    the most common sorts

*Erica (Heath) carnea*  
    " *cinerea* and most  
    other species

## KEW NAMES

ALL nursery gardens seem to be quite oblivious of Kew names, and in response to orders, send you things they suppose you want instead of the things you order. This leads to disappointment and sometimes to strong language. What I have said is specially true of flowering shrubs and trees, of which Kew has such a beautiful collection. I have made several unsuccessful efforts to get *Prunus persica*, the beautiful red Peach, which is pretty common in Kensington Gardens. Instead of it I have received a



miscellaneous collection of other things. Even *Pyrus floribunda* var. *sanguinea* does not seem to be known by that name, or I should not have quite a different thing sent me from a first-class nurseryman. There is a magnificent *Pyrus Ringo* out now at Kew, but it would be hopeless to expect a nurseryman to know it. ERNEST MOON.

While we agree in the main with what our correspondent advances, there is still something to be said on the other side; not so much, however, as there was before the Kew Hand Lists were issued. These lists include the names of practically all the plants in cultivation, and provide a standard of nomenclature which we hope will in time become generally accepted. We should have thought it would be good business for nurserymen to bring their catalogues into accordance with the Kew lists, and to advertise the fact. It would, we believe, when generally known, be found to pay, and that of course is the chief thing. If we take the branch of horticulture to which our correspondent refers—that of hardy trees and shrubs—we find our own nurserymen are much behind the best German ones in this matter of reliability in names.

But now for the other side. We have alluded to the Kew lists as providing a standard of nomenclature, but it is most important that it should be a permanent standard. When once a name is given as the true one it should stand, and not be changed without good reason. And we do not consider the belated discovery that an older name exists a good reason. We have recently had a very good example of what we mean in the *Botanical Magazine*. A plate was issued of a pretty *Heath* we have frequently recommended in these columns—*Erica stricta*—but here it is called *E. terminalis*. So far as can be gathered from the text, this is because this name is a few months older than the one by which it has been known for about a century. At present the Kew Hand List accepts *E. stricta*, and we trust that in future editions it will continue to do so. It is useless to hold up these lists as standards if they are to follow the vagaries of every priority hunter. The last edition of the tree and shrub list, we regret to say, contains a few flagrant examples. The list should form a connecting link between botany and gardening.

Names we must have, and it would be the greatest boon if everyone could call the same plant by the same name, but this name need not be absolutely in accordance with the latest researches into priority. Hunting up old names in musty volumes may, to some people, be a genial and interesting pursuit, but it is futile to expect the hard-working business man to follow. This is why we would ask that unless a name is absolutely wrong (not in its proper genus, for example), it should, when once it has appeared in these lists, stand for good.

With regard to the particular trees mentioned in the above letter, we may say that the Peach is by some nurserymen called *Persica vulgaris*, and by others *Amygdalus persica*. The Crab is also known as *Pyrus Malus floribunda atrosanguinea*. For *Pyrus Ringo* we know no other name in general use. That wrong plants should have been supplied for the two former can only be put down to negligence or ignorance on the dealer's part.

## COLOURED PLATE.

PLATE 1299.

### A BEAUTIFUL BUDDLEIA.

(*B. VEITCHIANA* MAGNIFICA.)

THE plate represents the beautiful *B. veitchiana magnifica*, which has been described on more than one occasion in our pages. As the plate shows, it is a variety of unusual colouring, is hardy, and quite different from *B. v. veitchiana*; it has a broader spike of darker colouring, and is longer and less branching. The spike will reach a length of 2 feet. Both are of equal value, and should become popular in English gardens, especially in the south of England.

## PRIZES FOR GARDENERS.

### AWARDS IN THE APRIL COMPETITION.

**STRAWBERRIES IN SUMMER AND AUTUMN.**—The first prize of four guineas is awarded to John Kelly, The Gardens, Wrackelford House, near Dorchester.

The second prize of two guineas to L. S. Bidwell, Royston, Herts.

The third prize of one guinea to J. Smith, The Gardens, Tangley Park, Guildford.

The fourth prize of half-a-guinea to S. T. Gilpham, The Gardens, Lofthouse, Torquay.

Papers sent in by the following competitors are considered worthy of commendation: H. Bassell, 28, Reckleford, Yeovil, Somerset; A. H. Cockburn, Garbmore Gardens, Garbmore, Perthshire; William Preedy, Hill Ash Lodge, Dyncook, Gloucester; Thomas E. Turtcher, Bexley, Kent; Q. Y. Andrews, The Gardens, Hochbanger Park, Sandy, Beds; Arthur P. Ford, Bigod's Hall, Dunmow, Essex; Thomas Bunyard, 61, Greva Road, Richmond; F. Williams, 11, Lower Grove, Wandsworth, S.W.; Richard Williams, Rathfarnham Castle, County Dublin, Ireland; A. Eames, Heanton Satchville, Dilton, North Devon; L. Livender, Waltham Manor Gardens, Twyford, Berks; M. Millard, Hartley Wintney, Winchester; T. Smith, Walsgate Gardens, Louth; J. S. Higgins, Rûg Gardens, Corwen, North Wales; H. Tomalin, Tower Hill Cottages, Kingsclere, Newbury; and Thomas Scott, 20, Greenville Terrace, Beersbridge Road, Belfast.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

June 6.—Royal Horticultural Society's Colonial Fruit Show.

June 12.—Royal Horticultural Society's Exhibition and Meeting.

June 13.—Royal Botanic Society's Show (three days).

June 19.—Oxford Commemoration Show.

**Federation of gardeners' mutual improvement societies.**—The subject of federation has been considered by the committee of the Croydon and District Horticultural Mutual Improvement Society, who have examined the replies to my letter of February 10 last in THE GARDEN, and they, to show their support of the movement, have engaged the lecture room at the Royal Horticultural Society's Hall, Vincent Square, S.W., to hold a meeting there on October 16 next, whereat delegates from societies are invited to discuss the matter, and it is hoped a provisional committee will be elected for the purpose of drafting a scheme of federation of gardeners' societies. To societies around London a circular will be sent advising them of the meeting, but I should like to mention that any

gardeners' societies throughout the British Isles who can send a representative are asked to do so, and, failing their attendance, will they be good enough to write me in the meantime stating their views, so that full consideration may be given to the suggestions.—HARRY BOSKIRK, *Croydon*.

**The Isle of Wight Rose Show** will be held at Ryde House, Ryde, an ideal place for a Rose show, on Thursday, June 28, which is to be observed as Coronation Day in the island, and not on Tuesday, June 26, as announced. It will be the day after the Southampton show.

**Windsor and Eton Rose Show.**—This event will take place on Saturday, June 30, on the Slopes, Windsor Castle, by gracious permission of His Majesty the King. The King has announced his intention of replacing the cup given by the late Queen Victoria, which was won outright last year, by another of equal value, to be competed for under the same conditions. It is offered for forty-eight distinct blooms. Mr. W. Titt, 24, Thames Street, Windsor, is the hon. secretary.

**The new Carnation society.**—Such progress has now been made with the formation of the Winter-flowering Carnation Society that not only will the first annual general meeting be held in London on the 29th inst., the first day of the Temple Show, but the members will dine together at Anderton's Hotel, Fleet Street, at seven o'clock the same evening. The usual rule with societies is business first, pleasure afterwards. We trust the business transacted later will not suffer because for this once pleasure takes first place. Most certainly the new body is fortunate in having for its special protégée one of the most useful, beautiful, and favoured flowers for winter cutting that horticulture furnishes.

**Ostrowskia magnifica in dry soil.** One of the most interesting plants in the beautiful rock garden at Swaylands House, Penshurst, the residence of Mr. George Drummond, is the *Ostrowskia*. It is planted on a ledge where the soil is very dry and no watering is given, but the growth is strong with a promise of plenty of flowers. Mr. Hosier, the gardener, says he finds the *Ostrowskia* enjoys these conditions.

**Flowers in Kensington Gardens.** Just now it is pleasant to saunter through the well-known flower walk. The great *Lilac* bushes are in beauty, and *Tulips* are still aflame in glowing colours. How attractive is the *Woodruff* (*Asperula odorata*) with its perfumed flowers of snowy whiteness. The *Yulan* (*Magnolia conspicua*) is conspicuous with its sweetly-scented, large, pure white flowers in profusion. The bold-leaved *Megasia cordifolia* attracts attention. Colonies of *Muscari* (*Grape Hyacinth*) give a pretty note of colour, and late-flowering *Daffodils* are still in beauty. Two good beds, near the Queen's statue, in the Elm-bordered Broad Walk, planted with *Tulip Proserpine* were very fine, and in this vicinity some half-dozen beds of the bold *Narcissus Emperor* were a striking feature.—Quo.

**Springtime at Kew.**—At the time of writing (May 19) the Royal Gardens, Kew, are in their sweetest spring dress. Bluebells are a sheet of colour everywhere, but thickest near the Queen's Cottage, at the extreme end of the gardens. Their warm fragrance seems to saturate the air, and mingles with the scent of bursting leaf and bud from tree and shrub. The *Rhododendron* dell is full of colour, and should be visited by everyone interested in this family, while the rock garden is as interesting just now as at any season of the year. Many happy colour associations may always be seen at Kew. Just inside the Brentford entrance there is a large massing of *Saxifraga cordifolia* against a hedge of Yew and other shrubs. This is the best place to plant the big-leaved *Saxifrage*.



BUDDELEIA VARIABILIS MAGNIFICA.





**Scottish Horticultural Association and its work.**—The "Transactions" of the Scottish Horticultural Association for session 1905 has just been issued to its members, and the issue is one which must be gratifying to its officials and the members in general. The report, already referred to in these columns, shows a flourishing state of affairs, and a steady increase in the membership is still in progress. The total membership on January 9, as recorded in the list in the "Transactions," numbered 1,469, a net increase of seventy-five. The minutes of the meetings held during the session show an excellent record of work, and the papers read during the year, most of which are published in full, are valuable in this form, particularly to the members at a distance who could not hear them read. A useful feature is an audit of the varieties

are of good size and shape and the blossoms very fragrant. The original plant at Kew has attained a height of a little over 2 feet, and is of rather loose habit. The leaves are very broadly ovate or roundish when mature, with serrated margins, silvery on the under surface and slightly pubescent, the veins having the pubescence more pronounced; the upper surface is green with a greyish tinge, the colouring being due to numerous tiny hairs. The inflorescence is in the form of a terminal, roundish head, and reminds one strongly at first sight of that of a *Rondeletia*. The buds are pink, the expanded flower being white, the reverse of the petals shaded with pink. The blossoms are thick in texture and very fragrant, the perfume reminding one of a *Stanhopea* or some other very fragrant *Oroid* blossom. Each flower-head is rather larger and also deeper than that of the ordinary *Laurustinus*, and this year they were at their best during the third and last weeks in April. The original specimen at Kew may be seen in a large *Erica* bed, together with a number of other choice shrubs, near the Pagoda. Cuttings appear to root fairly readily, so that there is reason to believe that the species will soon be found in many gardens. When planting a sheltered position should be found, as the buds are set in autumn, and there is the possibility of their being damaged by severe weather if placed in a very exposed place. The Kew plant has withstood the last two winters in the open ground unprotected, but there has not been any prolonged spell of severe frost.—W. DALLIMORE.

## KITCHEN GARDEN.

### YELLOW-FLESHED TURNIPS IN SPRING.

MANY who have gardens have never given the yellow Turnips a trial for use at this season. Though good at all times of the year, they are most useful at this time. In the northern portion of the kingdom yellow varieties are more grown than in the South, and I am not surprised, as after a trial of both sorts I find that they keep better, and this is a point worth knowing, as after March some of the white Turnips are flavourless, soft, and of little value. Some object to the colour, but this is a small matter considering their other excellent qualities. There are not many varieties of the yellow-fleshed Turnip. I have seen some half-dozen catalogued.

I will only describe three or four of the best, and first upon the list is Sutton's Yellow Perfection, one of the newer yellow introductions, not unlike the splendid Snowball with regard to shape, but a deep golden yellow in colour, and very handsome. It is a small root, and this latter point assists in a great measure in its keeping, as large roots are the worst in this respect, as they lose flavour and go soft more quickly. The roots of Yellow Perfection are rather flat, with a short top and of a bright golden colour. It is one of the quickest to mature that I have grown. When the seed is sown late in August and left in their growing quarters, this variety gives splendid roots for use at this season. Ours is a light soil, and they winter well; indeed, I find it is better to leave these sorts in the soil till new growth is active, then it is well to lift and store in April

in a cool place for use in May. Another very reliable root is the older Golden Ball, also a shapely root, solid, and of excellent flavour. This is one of the last to run, and on this account it is most valuable for spring supplies. I have often in the North of England, in a strong competition for Turnips—flavour, size, and solidity being the chief points—seen Golden Ball staged. This has been the best in all respects. This variety for late use should be sown late in the South, in a light, warm, and not too rich a soil. Give an open position, and grown thus there will be excellent roots for April and May. There is another yellow root equal in quality to the last named, but this I should advise for early winter supplies. Though my note more refers to the spring supply, it would be an injustice to omit the Yellow Six Weeks, which is a splendid table root for sowing from February to September by those who like the yellow sort. The flavour is very sweet and quite distinct from that of the ordinary white Turnips. The roots are flattish-round, the top growth is a very pale green, and it is one of the earliest to mature. In this respect it resembles the Early Milan sort, but it does not keep so well as the ones I have advised above. At Edinburgh, in collections of Turnips, I saw some splendid roots of Dobbie's Golden Ball. This is a great favourite over the Border, and it is rarely beaten in competitions. Of older roots there is the Yellow Malta, one of the best in cold, wet soils, but I prefer the more shapely Golden Ball or Yellow Perfection.

Another very old variety is the Orange Jelly, a firmer root than some, but a good keeper. I have noted some half-dozen sorts, quite enough for all purposes, and though I have made out a strong case for these roots, I feel sure that once they are grown for use at this season they will become favourites, and the want of really good roots now should make them more popular.

G. WYTHES.

### A NEW TURNIP—LITTLE MARVEL.

THIS new introduction from Messrs. Carter and Co., High Holborn, is a great gain in earliness and quality, and will be a most valuable root for first crop in the open. So far I have only had roots grown in frames, and when forced they were superior to the Early Milan variety. This new Turnip was obtained by crossing the Early White Milan with the Jersey Lily, the result being a beautiful medium-sized round root of excellent table quality, quite distinct in foliage and of compact growth. For frame culture it is most valuable. From seed sown early in February the roots were ready in the second week in April, and unlike one of its parents—the Early White Milan—it is more fleshy, not so flat, and less affected by drought. It more resembles the Jersey Lily in quality. I grew the Milan by the side of the new Little Marvel to test its earliness, and in this respect it is equal to the older variety. It should be a useful root for first crop in the open, or for a quick crop required in a short time, and it can be grown for a summer crop; indeed, there is a great gain in sowing frequently. I admit it adds a little to the labour, but the results well repay by a regular supply of sweet, small, delicious roots.

G. WYTHES.

### TOMATO WONDER OF ITALY.

THE above is the proper name of the Tomato which is referred to by "G. H. H." as Beauty of Italy. It is the heaviest cropping variety in cultivation so far as huge clusters of small egg-shaped fruits are concerned; but these have little merit, being generally somewhat hollow. It was sent from Naples to Chiswick for trial as long ago as 1896 by Messrs. Dammam under the name of *Semper Fructifera*. It appeared there again in 1900 from a British source as Wonder of Italy. It is well to keep these introductions as far as possible to their original names. D.



THE NEW VIBURNUM CARLESII.

exhibited at the last Chrysanthemum show. Several other features of value combine to make a year of steady progress.

**A new Viburnum (*V. Carlesii*).**—Several noteworthy additions have been made to the Viburnum family within the last few years, a number of very distinct and ornamental species having been introduced from Central China by Messrs. Veitch, through the agency of their late collector, Mr. Wilson, while the above species has been obtained from Korea through other channels. In the spring of 1902 a tiny plant was received at Kew from Mr. Böhmer, a nurseryman in Japan, and it is now flowering for the first time, for although buds appeared last year, they failed to mature. Now that the flowers are expanded it proves to be an exceptionally valuable garden plant, for the trusses



## THE AURICULA.

**T**HE Auricula has been cultivated in England for more than 300 years, but for some time previous it had been receiving careful attention in Holland and Flanders. The Auricula has a charm peculiar to itself, a delightful fragrance, especially in the early morning, and a bloom which it would be difficult to surpass.

*Auriculas from Seed.*—It will be well to begin by considering the propagation of Auriculas from seed. No pains should be spared to procure seed that can be depended upon, both for quality and germinating power. In seeding the Auricula, only the best flowers should be used, and the best pipe on the truss, and for the seed-bearer a young, healthy plant should be selected. It will not injure a valuable plant to carry a pod or two of seed. Having chosen the plant, the next thing to do is to take away the anthers, to prevent impregnation by its own pollen. This must be done as soon as the pipe begin to open, and the greatest care must be exercised so as to prevent any pollen falling upon the pistil or stigma. The plant should be held bottom upwards, and the anthers nipped off with a very pointed pair of scissors. It is of no consequence whether the petals become damaged or not; in fact, some florists begin by removing them altogether, so that the pistil is left standing alone. What is of consequence is that the pistil must be uninjured.

*Fertilisation* should always take place when the flowers are in a young state, for then the pin or stigma is in a suitable condition to receive the pollen. This should be conveyed by a camel's-hair pencil brush or, as some prefer, by dropping the anthers into the tube. The anthers must be fresh and well covered with pollen. When a brush is used, the minute grains of pollen are not very easily freed from it for any new experiment. Green edges, grey edges, white edges, and selfs should only be crossed in their own respective classes, although it will frequently be found that greens are produced from whites, whites from greens, and so on, while selfs will be sure to predominate. Therefore class distinction as regards seedling Auriculas is very uncertain; and yet to ensure success in the raising of good new varieties it is absolutely necessary to work upon each class separately. This also applies to the alpine Auriculas, which must be treated in a similar

manner. In this section there are only two classes—the gold centre and the cream or white centre. These two classes ought never to be crossed except for very special reasons. The best time to

*Sow the Seed* is the end of February. Many people prefer to sow as soon as it is ripe; but the advantages of autumn sowing are small in comparison with the disadvantages. Plants raised in the autumn are subject to many evils. Frost may suddenly set in, and the growth be suspended at a time when activity is essential, with the result that those plants which have not had time to form their rough leaf stand but a poor chance of pulling safely through the winter. The sunless days and cold, damp fogs of November work sad havoc among the Auriculas, and even those plants which survive the winter enter upon spring with a constitution weakened by the struggle for existence. The end of February is, then, the better time for sowing. The seed will germinate quickly, and so it starts on its journey in life at a period to which Nature has assigned the most active growth; and it is only reasonable that with proper attention health and vigour can best be maintained at a season when there is no check to the growth such as takes place in winter. A suitable

*Soil* consists of two parts good fibrous loam and one part good flaky leaves, Oak leaves if they can be procured, but in any case such as have not already rotted into mould. Sufficient coarse sand should be added to keep the soil well open and the drainage good. This compost will do both for sowing the seed in and for transplanting the seedlings. Whether the seeds are sown in pans or in pots the drainage must always be perfect. Plenty of crocks should be put at the bottom and covered with a layer of fibre. Then the soil should be pressed firmly in, but left as fine as possible on the top for the reception of the seeds. It is better to dibble the seeds in about half an inch or so apart, so that, when any plants are ready, they can be removed without injury to those which are not so far advanced. If there is not sufficient time to dibble the seeds in, they should be drilled in, and covered very lightly. The seeds quickly germinate if sown in pots, the pots being placed in saucers filled with water, and covered with a sheet of glass. When the seedlings begin to show, the pots ought to be removed from the saucers, and replaced in them only when water is needed. Seedlings in a

small state thrive best in a rather damp atmosphere, and this is an argument in favour of spring sowing, for it would be impossible to indulge them with damp in winter. Watering overhead is apt to wash the seedlings out, unless very carefully done. If this method be adopted, the hand should be drawn across a wet brush, and the spray allowed to fall on the soil, but this is both tedious and uncertain. C. HENWOOD.

(To be continued.)

## AURICULAS AT GREAT BOOKHAM.

A *FINER* exhibit of Auriculas has never been seen than that shown by Mr. James Douglas of Great Bookham, Surrey, at a recent meeting of the Royal Horticultural Society in their new hall, Vincent Square, Westminster. Mr. Douglas then exhibited some 300 plants in many choice show and alpine varieties, but even they did not exhaust the collection in the Bookham nursery. It is hardly an exaggeration to say that another exhibit equally fine could have been made from the large stock which Mr. Douglas has. The Auricula seems to be regaining the popularity which once it had, and great interest is again being centred in this beautiful flower. The accompanying illustration shows a few of the lovely show varieties in Mr. Douglas' collection, which includes all the best show and alpine varieties extant, many of them having been raised by Mr. Douglas. Mr. Douglas has mastered the art of growing Auriculas as few others have. We never saw a finer lot of plants than those in the houses at Bookham. The Auricula is not an easy plant to grow well, although probably many of the failures which occur are due more to want of patience and care than to ignorance of its requirements.

## THE GREENHOUSE.

## HOW TO GROW CINERARIAS.

**C**INERARIAS are comparatively easy plants to grow. They are most useful for all decorative purposes, either for cutting or as pot plants. The stellate varieties make charming plants for house and conservatory decoration. For flowering early in the spring seed should be sown in May, and in June for succession. Sow in clean, well-drained pans of equal parts loam and leaf-soil, with some sharp sand added, first passing the soil through a fine sieve. The pans should be filled to within half-an-inch of the top, and watered through a rose some time before sowing. Sow the seeds thinly and regularly, and cover very lightly with fine soil, leaving the surface quite level. Cover the pans with sheets of glass and pieces of paper until the young plants appear, when the paper must be removed and the glass gradually taken off as the plants progress. Place the pans on a shelf in a greenhouse or frame in a shady position. When the seedlings are large enough to handle, pot them separately in small pots, using two parts fibrous loam, one of leaf-soil, and some sand. Place the plants in a close frame and shade lightly from bright sun. Syringe them with soft water on fine afternoons. As they develop gradually diminish the heat and give more air. Immediately the small pots are filled with roots, shift the plants into those of 4 inches in diameter, using the same kind of soil as before. The plants may then be placed in a cold frame,



SOME OF THE BEAUTIFUL SHOW AURICULAS IN THE NURSERY OF MR. JAMES DOUGLAS, GREAT BOOKHAM, SURREY.

For the final potting pots 6 inches or 7 inches in diameter are large enough, unless large specimen plants are required, when 8-inch pots may be used. Pot in a mixture of three parts turfy loam broken up roughly, one of leaf-soil, and one of manure from a spent Mushroom-bed, with sufficient sand to keep the soil open. Place the plants in a cold frame under the shelter of a north wall, keep them close for a few days, gradually admit more air, and endeavour to grow them as hardily as possible. If the sun does not reach them they will not require shading.

As soon as flower-stems are seen manure water may be given with advantage once or twice a week, and occasional top-dressings of Clay's Fertilizer mixed with a little soil. As the autumn advances they should be removed to a house or pit with a little heat. Admit air on all favourable occasions; a temperature of 40° to 45° should be maintained throughout the winter months. Cinerarias are subject to green-fly; this can be eradicated by fumigating with Richards' XL All. To ensure success prompt attention must always be given to watering, airing, shading, and syringing. Endeavour from the first to keep the plants healthy, sturdy, and vigorous.

G. W. SMITH.

*Daneshield Gardens, Marlow.*

### PERSIAN CYCLAMENS.

A CORRESPONDENT advocates the growing on for the second season corms that are eighteen months old, saying that they flower more abundantly than those which are raised annually from seed. There can be no doubt on the point; but there is nothing new in this, most gardeners reserving a batch each year for this purpose. Not only do they grow and flower them the following year, but for several seasons. The finest plants that have come under my notice were eight years old, and in early spring a mass of bloom, carrying nearly 100 flowers each, in 7-inch and 8-inch pots respectively, with fine leathery foliage as large as the palm of one's hand. These were the old *Cyclamen persicum*, and not of the giganteum type, and were grown with very little fire-heat, being placed on a shelf quite near the glass in an ordinary Peach house and subjected to no shade whatever from about the beginning of July, when they were repotted and placed in a cold frame and removed to the said shelf in October as soon as frosty nights set in. Seedling plants flower much earlier than older ones, but the latter form a good succession early in the year.

*Bicton.*

J. MAYNE.

## THE FRUIT GARDEN.

### PROTECTING RIPE STRAWBERRIES.

AT this season of the year many who grow Strawberries frequently ask what is the best way to preserve the ripe fruit from touching the soil? One often sees such things as straw from stables. This is an abomination when used direct from the stalls. It should be cleansed by rain and exposure. Another material often used is short mowing grass. This is bad in wet seasons, as it harbours snails, slugs, and adheres to the fruit; others use straight straw, but this, though clean, is not the best, as in wet seasons it is too close, and encourages decay and mildew. I once saw dry hay used, but this is as bad, as after the crop is cleared the ground is like a field, as the seed quickly germinates, and in wet weather the grass soon turns mouldy. For some years I have used grass from a hay field—clean straight grass, free from weeds, and about 12 inches to 15 inches long. This, when gathered with a little care and placed thinly in position in layers, is very clean, and there are no weeds if the grass is cut in the southern part of the country in May, and in the north early in June; the grass soon dries

and there is little shelter for vermin. It is soon removed when it has done its work, and is not much trouble to put down, and costs little. I have found that there is less trouble with slugs in wet seasons as there is not much shelter for them.

G. W. S.

### MELONS.

I WAS pleased to note that mention was made of Sutton's Scarlet in your issue of March 3, as it is practically the standard variety with us out of many tried here. The plant is robust, sets freely, is of a nice table size, and, last but not least, of excellent flavour. Further, it is as early as any we have tried, and generally comes in from May 6 to May 12, nearly as early as it is possible to get a well-flavoured Melon ripe.

I have grown it continuously for the past twelve years, and have never had a better lot than last year, therefore it is far from being run out yet. One season we had several plants go club-rooted late in the year, similar to the Cucumber; can any reader assign any cause for this and suggest a preventive?

J. MAYNE.

### A GOOD LATE APPLE.

IN the late Apples recently named in your columns I do not see Old Northern Greening included. This sort has several names, the most popular being Curly-tailed Pippin. This curly tail, by the way, disappears under high cultivation. The modern gardener often omits this Apple as small and unworthy of cultivation, but there is no Apple known to me which improves so much under good and generous handling. It has medium-sized fruit with a fine texture, and good flavour; it ripens in April and May. If buried in sand it keeps till the earliest Apple comes. This in my experience is the Danish Hampus which, unprotected and out in the open, ripens at the end of June. As a cultivator of Apples for fifty years I do not know a more profitable sort than this Old Northern Greening.

*Watford.*

N. P.

### RETARDING A PEAR TREE.

EARLY in January I was anxious about a Pear tree, the buds of which seemed as if they would burst in a month. As there was a splendid lot of



THE NEW CLIMBING ROSE FRAU KARL DEUSCHKE.

buds on the tree, I thought it well to try to keep it back, and I uncovered the roots and carefully displaced the fibrous ones. I then covered them with sacks without replacing the earth, and occasionally I gave the sacks a dose of the coldest water available. The buds did not begin to expand until early in March, and at the end of the month the tree was a mass of blossom. The petals have all fallen now and the fruit is well set all over. I am not at all sure that my treatment has secured this result, so I should be glad to have your opinion about it. All my Pears are setting well this year, and I have never had such a quantity of set fruit on any of them.

J. GORDON WILSON.

*Baldoye, County Dublin.*

[We think our correspondent's treatment probably helped to retard the blossoming, although the weather, doubtless, was chiefly responsible.—ED.]

## A NEW ROSE.

### CLIMBING FRAU KARL DEUSCHKE.

THIS is a Rose likely to become immensely popular in gardens. It originated in the nursery of Mr. William Lawrenson, Hutton Gate, Guisborough, and received an award of merit from the Royal Horticultural Society in the spring of this year. It is of vigorous growth, and plants grown under glass in Mr. Lawrenson's nursery have made 12 feet to

15 feet of wood in a season, and bent down with the weight of flowers. It will bloom in the dead of winter, the flowers opening a very pale pink colour, which passes to pure white, as in the parent. Its freedom of flowering is remarkable. The plant (which was in an 8-inch pot) shown before the Royal Horticultural Society had thirty-six buds and flowers. On its return to the nursery the green wood was removed for propagating purposes, but it is again full of buds.

## TREES & SHRUBS.

### CYTISUS KEWENSIS.

**I**N 1891 this hybrid Broom was raised at Kew appearing amongst some seedlings of *Cytisus Ardoini*. It is, of course, very distinct from that species, which is a dwarf shrub from the Mediterranean Alps, of rather compact habit, and having bright golden-yellow flowers. *C. kewensis* has a prostrate habit, and in the plant illustrated some of the branches are 3 feet or 4 feet long, but none reach more than about 1 foot from the ground. A detailed examination of the wood, leaves, and flowers leaves no doubt that the white Portugal Broom (*Cytisus albus*) was the pollen parent. Specimens of this were growing near the plant of *C. Ardoini* from which the seed that produced *C. kewensis* was gathered.

The leaves of *C. kewensis* are made up of three leaflets, which, like the young wood, are covered with soft down. It flowers during early May (how profusely the picture will best tell), and the blossoms are of a very pretty, soft, rather

creamy white, sometimes a very pale sulphur-yellow. In colour they are very similar to the flowers of *C. præcox* (also a hybrid), but somewhat larger, the standard petal being half an inch across. In places where a prostrate shrub is required this will prove very valuable. It can be increased by means of cuttings, or it can be worked on stocks of the *Laburnum* as standards. B.

### PRUNING EARLY-FLOWERING SHRUBS.

EARLY-FLOWERING shrubs should be pruned as soon as the flowers fade. Late-flowering shrubs should be pruned in spring, as they form their flower-buds on the young shoots. The great advantage of spring pruning lies in the rapid healing of the wounds. The majority of ornamental trees are therefore best dealt with at this season. Tender subjects should never be pruned in winter, as they are liable to be injured by the cold. It is, however, better to prune in winter than to neglect it altogether. Dead wood may be removed at any season. By yearly pruning the specimens are kept well in hand, and the work is easily accomplished. When it is necessary to remove large branches from ornamental trees, a saw should be used; in no case use an axe. Saw as close to the main branch as possible; leave no ragged edges, but finish the cut neatly with a knife. Afterwards paint over the wound with Stockholm tar or white lead mixed in Linseed oil. The best varieties of *Rhododendrons*, *Lilacs*, &c., that are grafted are often ruined by suckers not being removed. These should be constantly watched for and removed, as in the case of fruit trees and *Roses*.

C. RUSE.

Munden Gardens, Watford.

### WISTARIA MULTIJUGA ROSEA.

WISTARIA MULTIJUGA ROSEA is showing about a dozen nice bunches of bloom—we believe for the first time in this kingdom—in Mr. Gumbleton's garden at Queenstown.



A HYBRID BROOM (*CYTISUS KEWENSIS*) IN THE ROCK GARDEN AT KEW.



A GRAPE HYACINTH (*MUSCARI CONICUM*) AT THE WOODLANDS, HARROW WEALD.

Mr. Gumbleton is the only person who has bloomed it in Europe. It was introduced by Léon Chénault of Orléans, from whom Mr. Gumbleton had his plant three years ago.

## THE FLOWER GARDEN.

### THE GRAPE HYACINTHS.

(MUSCARI.)

**M**ANY names have been applied to the various members of this charming family of early spring-flowering bulbs, but the greater number possess so great a resemblance that it is somewhat difficult to distinguish them from one another. Some of the more distinct kinds, however, are exceedingly useful for planting in groups on the borders of shrubberies and in open places in the wild garden. Seen in a mass on grassy banks nothing can exceed the beautiful effect produced by the numbers of racemes of bright violet-blue flowers

choice and elegant forms being the variety with pure white flowers, *M. botryoides* var. *album*.

*M. conicum*, of which that variety called Heavenly Blue is one of the finest, produces long racemes of bright violet-blue flowers, some heads being quite 4 inches in length. It may well be considered the most beautiful of all the Muscari.

*M. comosum*, a native of South Europe, is a curious species, with the upper part of the raceme composed of barren flowers. In the var. *monstrosus* (Feathered Hyacinth) the head is composed of a bluish violet tuft of slender ramifications; a remarkable and distinct plant.

*M. latifolium*, one of the rarest as well as one of the most distinct, is found in parts of Asia Minor. It is remarkable for its broad leaves, which are sometimes 1½ inches across, and is one of the most robust, growing about 1 foot high, with good-sized racemes of nearly all, almost black flowers, the few upper ones being violet-blue. It increases very slowly, differing in this respect from most of the other species.

*M. paradoxum*, from the Caucasus, is a well-marked plant, bearing, about three somewhat

buds upon them in the third week in April, after all the frosts and chilly north and east winds that had then so long prevailed. At the present date the number of open flowers is nearly double those shown. FRANK CRISP.

Friar Park, Henley-on-Thames.

### IXIAS AND SPARAXIS.

In an article on these plants (page 210) Mr. T. B. Field writes: "They do not succeed as hardy bulbs in any part of Great Britain." Mr. Field is apparently entirely ignorant of the climatic conditions which prevail in South Devon and Cornwall, and which render the culture in the open air of South African bulbs and those from other sub-tropical countries possible and satisfactory in those localities. In proof of this may be mentioned the illustration of a "bed of Sparaxis out of doors in the south-west," which appeared in the *Gardeners' Chronicle* of September 9, 1905. The picture shows a large bed of Sparaxis a mass of bloom. These bulbs, to my knowledge, have not been touched for eight years and bloom freely annually. In the same



OMPHALODES LUCILÆ IN MR. CRISP'S BEAUTIFUL ROCK GARDEN, FRIAR PARK, HENLEY-ON-THAMES.

of *M. conicum*. The large, handsome flower-heads stand up well above the green grassy foliage, and they last in perfection for a considerable period. Among the easiest of bulbs to grow, they increase very freely, and large masses may soon be obtained by lifting the bulbs every two or three years and dividing the clumps. They make excellent pot plants, and for the cold house they come in very useful during the month of April. Almost any soil suits the Grape Hyacinths, although the most suitable is a deeply-worked and well-drained sandy loam. The following are some of the more distinct kinds:

*M. armeniacum* is one of the latest to flower, coming into bloom about the end of May. It is also one of the most handsome; it has long, dense racemes of blue-violet flowers. It is a native of Armenia, and was brought into cultivation by Herr Max Leichtlin in 1876.

*M. botryoides* is one of the oldest cultivated species, with short racemes of violet-blue flowers. Spread over South Europe and extending into Asia Minor, it varies a good deal, one of the most

broad leaves to each bulb, and a raceme of blue-black flowers. It is not to be compared in beauty to Heavenly Blue, but is still well worth growing in a collection of bulbous plants.

*M. szovitsianum* is a native of Northern Persia and the Caucasus, and is one of the earliest to flower, appearing about the beginning of April. The racemes of bluish flowers are dense and long, with a few sterile light blue ones at the top.

W. IRVING

### OMPHALODES LUCILÆ.

It is often strange to notice how plants will grow like weeds in some places, while they refuse to grow at all elsewhere, though all the conditions of soil, climate, aspect, &c., are apparently the same. This beautiful *Omphalodes*, as is well known, has almost died out, and when rarely catalogued is put at a prohibitive price. Yet it has grown here for seven years without the exercise of any special skill or care. The two plants shown in the accompanying illustration had no less than 130 flowers and opening flower-

garden Ixias, untouched for the same period, never fail to come up and bloom well every year. I could at the present moment send you fifty or more scapes of Sparaxis picked from the open air. Freesias have been in bloom with me in the open through the whole of April, and are now just over; *Gladiolus tristis* concolor is now at its best, and is a lovely sight, while at night the flowers emit a delicious perfume. The white *Watsonia Ardernei* also does well. The South African *Sutherlandia frutescens* is now in full flower with me in the open, and is covered with its pendent crimson blossoms, and *Osteomeles anthyllidifolia*, from the Pacific Islands, is freely set with buds, while *Clianthus puniceus* and its white variety are smothered in blossom. I mention these instances in the endeavour to prove the incorrectness of the impression, which appears to be generally held by gardeners in the colder parts of the country, that the cultivation of tender plants in the open air is impossible in any portion of the British Isles.

South Devon.

S. W. FITZHERBERT.



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**M**ELONS AND CUCUMBERS IN POTS IN GREENHOUSE (in reply to "Anxious Will").—Melons and Cucumbers can both be grown with success in pots and without bottom-heat in a temperature of 60°. Many growers grow all their winter Cucumbers in pots. Last winter we saw many plants on shelves close to the glass that gave much better results than those in beds with a wider root area. On the other hand, from May to October, with more sun-heat, there must be more moisture and food at the roots. The Cucumbers should be grown in a moist house, ventilated somewhat sparingly, and not overcropped. The Cucumbers are daily producing or setting fruits. The Melon fruits should be set all at one time. If you grow both in the greenhouse, when the

but made light with such aids as old manure, wood ashes, or even old fine mortar rubble. The large pots should have ample drainage. In placing the soil in the pots, make it fairly firm, and fill to within 4 inches of the top; the space left will later on be valuable for surface-dressings. Plant and subsequently train the plants as required. Much depends upon your roof-run; if only 6 feet stop the plants when they are 4 feet long; laterals will develop and bear fruit. Thin to two or three, then the plant continues to make new shoots; if allowed to bear too many, growth is arrested. The lateral growths also require stopping beyond the second joint.

*Feeding.*—The plants should have food in the way of liquid manure or a fertiliser twice a week.

Water may be necessary every day in hot weather; this also must be of the same temperature as the house. Top-dress the plants with rich food or soil, and syringe them at least twice daily. Melons require much the same culture as regards sowing and planting, stopping the main shoot at 3 feet, or even less if on shelves, but they need a heavier soil made firm. After stopping laterals will push out; these will show fruit, and must be stopped at the third joint. Fertilise the flowers, setting as many as possible at one time. As the fruits attain size, give support; feed as advised for the Cucumber. Keep the later small side growths stopped at the first joint so that the roof is not crowded with foliage.—G. W.

## THE BEGINNER'S FRUIT GARDEN.

*The Peach and Nectarine.*—The culture for both Peaches and Nectarines is the same, therefore in the notes which follow the two fruits are grouped together. The best soil for the Peach is rather a heavy loam, and if the subsoil is clay, keep the roots out of it by placing a layer of concrete in the bottom of the hole, extending far enough to permit of the extremities of the roots being lifted if they go downwards. The best course is to buy what are called out-back trees from the nursery, and allow each tree

are planted in the autumn, the roots will begin work almost directly, and in the course of a month or so the branches may be pruned and either tied or nailed to the wall.

*Protecting the Flowers.*—The Peach usually begins to open its blossoms about the middle of March, and some protection should be given. We have found fishing-net, tightly strained over poles fixed under the coping, and projecting at the foot about 3 feet to give room to walk or work underneath, very satisfactory. If heavier coverings are used, they should be opened out or removed every fine day to give air and permit the sun to shine upon them; but the fishing-net may remain over the trees as long as protection is required.

*Pruning the Peach.*—This should be begun in April by disbudding surplus shoots, removing only a few at a time and spreading the work over several weeks. In beginning the disbudding it is necessary to bear in mind that one good shoot must be left as near the base of each of the present bearing shoots as possible. The leader also must be left, though in crowded trees, or to prevent overcrowding, the leader may be pinched when 8 inches or 9 inches of growth have been made. The point to bear in mind is: there must be a shoot carrying good foliage beyond the fruits, or the latter will not swell. If the bearing branches are long, one or more shoots may be left between the shoot near the base and the leader, and at any rate the growths should not be removed too hastily, especially in cold districts. For this reason sometimes the young shoots, or some of them, are pinched back and allowed to remain for a time, to be removed later. The young shoots left for the next season's crop should be nailed in close to the wall before the winds damage them. To carry the pruning further and finish the subject—after the fruits are gathered all the branches which can be spared should be cut out to facilitate the ripening of the young wood. Early in January unnailed the branches, and as soon as the buds grow so that the wood-buds can be identified, finish the pruning by cutting out any branches not required, so that when those left are trained to the wall, they may be placed at equal distances of 4 inches or 5 inches apart. If the trees are properly managed, the wall should be furnished from base to summit with bearing wood.

*Insects and Diseases.*—The most troublesome and most difficult to deal with are the black aphid, which, if permitted, will curl up the leaves and their destruction will be very difficult. Almost before the blossoms have fallen the close observer may find a fly or two about the trees, and the attack should begin. The best and cheapest remedy is Fowler's Tobacco Powder, applied through an elastic distributor. Two or three times a week the gardener should look round his trees with the powder distributor in his hand. A few minutes each day will suffice for a long wall, and a couple of shillings will buy all the powder required. As the days lengthen and the season advances, the garden engine or the hose will keep down red spider, and these are the chief enemies the Peach is troubled with. The thinning of the fruits must receive attention. Very many amateurs and beginners injure their trees by cropping too heavily. The principal disease which the Peach is subject to is blister of the foliage, which is partly due to cold winds in an exposed garden, and may be lessened by affording shelter fixed at right angles with the



HOW MELONS SHOULD BE GROWN IN A POT.

Melons are turning colour you must not mind having fewer Cucumbers. Have you shelves in your greenhouse? If so, if large enough, grow the Melons at the back of the house where there is more ventilation, and the Cucumbers at the front of the house. In both cases at the start, say, for two months, the culture will be similar. Avoid cold draughts; these are most harmful, and are the precursor of thrips and red spider, two pests the plants are most subject to. The Melon requires a stronger soil and less food and moisture than the Cucumber. Pots of 14 inches diameter are a convenient size; bottom-heat from now to October is not a necessity. The seed should be sown in small pots, and the seedlings grown on until they have made four leaves, keeping them as near the light as possible. The large pots should also be prepared at the same time, as it is necessary to get the soil warmed to the temperature of the house. Soil for Cucumbers should be light and rich, not sandy,

from 16 feet to 18 feet of space on the south or south-east wall. The wall should not be less than 10 feet high, although in suburban gardens they are often planted on lower walls, and sometimes with a fair amount of success when the trees are in good ground. The chief points to be kept constantly in mind are to thin the young shoots sufficiently so that every leaf may have room for development, and to destroy all insects the moment they appear. If these matters are promptly attended to, Peach culture will be easy and successful. Assuming the position has been prepared and the trees bought, prune the roots wherever damaged and place the stem or trunk of the tree 4 inches from the wall on the site, which has been made firm, so that the tree will not settle too much. Spread out the roots 8 inches or 9 inches from the surface, cover with a little good loam, make firm, and spread a small littering of manure over the surface to shelter the roots whilst they are working. If the trees

wall and projecting far enough from the wall to stop the cold currents which rush alongside.

*Sorts.*—Hale's Early, Waterloo, Dymond, Crimson Galande, Noblesse, Goshawk, and Golden Eagle. Early River's, Lord Napier, Pineapple, Elruge, and Chaucer are the best Nectarines.

*The Apricot.*—Apricots must be planted within 4 inches of a wall in a good aspect, and trained fan-shaped on the wall. The best time to plant is in November. Prune back from one-half to two-thirds to obtain sufficient branches to cover the wall, and do not permit the branches to grow upwards until the bottom of the wall is in a fair way of being covered. Train the main branches 9 inches apart. Small bearing wood can be trained in between, but keep the centre of the tree open till the wall is covered. Good loamy soil, if the drainage is correct, will require nothing beyond some old plaster or mortar blended with it. All manures beyond light top-dressings are hurtful. The disease known as branch-dying may be traced to planting in soil of too rich a character and using the knife too freely afterwards. All stone fruits use up a good deal of lime. Lime in the process of decay is better than fresh lime. The roots work best in a firm soil. There should be no digging with the spade within 4 feet of the trunk, but the fork and the hoe may be used to keep the surface open to admit warmth and moisture. The walls of a dwelling or building of any kind are warmer and drier than an open, exposed wall. This may explain why Apricot trees often do better on a cottage wall than on the garden wall. After the trees begin to bear, top-dressing and watering in a dry summer may be necessary, when the trees are heavily cropped. In cold, damp soils, concrete the bottom of the hole 4 feet square, 2 feet from the surface, before planting the tree. Carefully separate and lay out the roots within 8 inches or 9 inches of the surface, and make firm.

*Pruning.*—The less the knife is used the better; but the trees, of course, must be reasonably pruned. The Apricot will bear on spurs which spring from the main branches, and also from short, matured spurs which are thrown out by young wood of the previous year's growth. The crop is usually taken from both sources, hence the importance of training in a young branch between the main branches, where there is room without overcrowding. Towards the end of June all young shoots that are not required for training in should be shortened back to four leaves.

*Protecting the Blossoms.*—We have always found a double thickness of fishing-nets sufficient. In sheltered gardens a single net lightly strained over poles will suffice.

*Thinning the Fruits.*—In a good season Apricots set very thickly, and then thinning should begin early, and be finished as soon as the stoning is over. Moor Park is the most popular sort; Hemskirk is a little hardier.

## TOWN GARDENING.

*Violas.*—These are now growing freely and are commencing to flower. In order to have them in bloom as long as possible, all faded flowers should be picked off so as to prevent their forming seed. The plants will still make a good deal of growth if well watered during the hot, dry weather; but if seed-pods are allowed to form their growth will be checked considerably. If the Violas are planted among the Roses, as they are in many gardens, they will now be deriving much benefit from the mulch of well-decayed manure, if this was given as advised some two months ago.

*Clipping Hedges.*—Now is the time to clip hedges in the garden, for the plants have a long

season of growth before them. Hedges which have become bare at the base should now be cut back hard instead of receiving only the annual clipping. The result will be that the hedge will break into growth low down, and in a season or two the bare base will have quite disappeared.

*Thinning Rose Growths.*—Some Roses, especially those of the wichuraiana type, Dorothy Perkins, for example, send up quite a mass of growths from the base of the plant at this season. In order to make the best of one's plants some of the growths should be thinned out so as to give others a better chance of developing into strong shoots. Many of these growths are somewhat weak, and even if allowed to remain will never develop into good shoots that will blossom satisfactorily. It is then doubly wise to cut them off, for while being useless in themselves, they hinder the growth of the better ones to a certain extent. In the case of dwarf or bush Roses it sometimes happens that the piece of last year's wood left at the pruning in March produces a number of weak, puny growths from top to bottom. Here again it would be far better to cut off some of the small growths, so as to strengthen some of the others, otherwise there will be no good wood made at all this year. The bush will become full of weak spindling shoots which are quite useless. By thinning out the weak ones now, and especially those which point towards the centre of the bush, much disappointment will be prevented.

## THE EDITOR'S TABLE.

### MARGUERITE QUEEN ALEXANDRA.

From Castle Bromwich Hall Gardens, Birmingham, Mr. G. Nelson sends a bunch of flowers of this beautiful Marguerite. The petals are pure white, flatly disposed, while the beauty of the flower is enhanced by the red-brown centre. Mr. Nelson writes: "I am sending you a few flowers for your table of Marguerite Queen Alexandra. I have no doubt when this plant becomes more generally known it will prove a general favourite. Its usefulness for out bloom is unsurpassed."

### HYBRID PEONY LE PRINTEMPS.

Mr. Gumbleton sends a flower of the hybrid Peony Le Printemps. This is one of the most delicately beautiful hybrids we have seen. The flower is nearly 4 inches across, and the colour is best described as cream suffused with a satiny rose shade. This, and the bunch of yellow stamens and anthers in the centre, give it a peculiar charm. The leaves are a fresh bright green colour.

### AUBRIETIA LILAC QUEEN.

Mr. Gumbleton also sends an Aubrietia raised by Max Leichtlin. The flower is a very pure and beautiful shade, quite unlike the dead coloured flowers we see in gardens, so much prized, and frequently prized beyond their worth. We recommend this heartily.

### FLOWERS FROM EDINBURGH.

Mr. Johnston sends from Erneston, Boswell Road, flowers from plants of the Marguerite Daisy, Nicotiana Sandera, and Nasturtium. They are interesting because out from plants which have been grown on for two or three years. Our correspondent writes: "The first two have been flowering all the winter, and the third during the last few weeks, in a cool greenhouse, having been lifted from the outside garden in late autumn and kept in large pots during the winter. The weather last autumn having been very cold and dull the Nicotiana did not get the length of flowering outside, and, though it was covered with flower-buds all the winter, its shoots became so long and straggling, and so many of its large leaves and some branches damped off, that I never expected

it to blossom out so luxuriantly as it is now doing, being about 3 feet high and 2 feet 6 inches in diameter. The Nasturtium has never been out of the greenhouse since it was sown there fully two years ago, and as this is its third flowering season, with every appearance of health, and the flowers are at the ends of the former season's growths, it may be counted as a greenhouse perennial. The Marguerites are rather badly affected by greenfly, and, to my great surprise, the strongly-scented Nicotiana is also slightly covered with them, which reminds me of a similar surprise I got several years ago on finding Foxglove leaves covered with big fat dark green caterpillars. This rather shakes one's faith in vegetable poisons as insecticides."

### APPLE DUMLOW'S SEEDLING.

From Wolston Grange Gardens, Rugby, Mr. B. Robinson sends some excellent fruits of this late cooking Apple, together with the following note: "I send you a sample of Dumelow's Seedling (Wellington) Apple, kept in a cold and dark fruit room, the only ventilation being the door. Of the three Apples mentioned in THE GARDEN of the 28th ult., I find Dumelow's keeps the best, firm and sound well into June with us."

### TULIPS FROM COLCHESTER.

Messrs. R. W. Wallace and Co., Kilnfield Gardens, Colchester, have sent a gathering of the May-flowering and Darwin Tulips, a selection showing the many beautiful varieties now to be had among the later Tulips. Among the Darwins the following were some of the best: Psyche, soft dull rose; Mrs. Farncombe Sanders, bright showy flower, cerise coloured; Hecla, dark crimson; Leonardo di Vinci, almost black; Ergaste, small pale violet; Antony Roozen, large flower, deep rose and silvery white; Isis, a striking crimson flower; Mme. Krelage, rose, with silvered edge; Painted Lady, white, tinged with pale purple and crimson; and Millet, a flower of fine form, dark crimson. The other section comprised Maid of Honour, primrose, splashed with red, a beautiful flower; Primrose Gem, clear pale yellow self; Vitellina, satiny white; Scarlet Emperor, a richly coloured flower, scarlet, with yellow base; and generiana lutea, a lovely canary yellow flower of exquisite form.

### SEEDLING AURICULAS.

We have received from Mr. Petherbridge, Wern Dantzey, Paignton, flowers of some seedling Auriculas of very good colouring. They were mostly grown under a north wall, and a few under a west one. Our correspondent also sends a very pretty seedling Pansy.

### SOME INDIAN RHODODENDRONS.

From Graywood Hill, Haslemere, Mr. B. E. C. Chambers sends a most interesting lot of Rhododendrons with the following note: "I send you a few flowers for your table now in bloom (end of April) here in the open, viz., Rhododendrons Campbelli (pink), Thomsoni (red), and campylocarpum (cream and spotted). The present season has been very good for Indian Rhododendrons. R. campylocarpum and R. Thomsoni are masses of bloom, and even the shy R. Falconeri promises a few flowers. Then of Chinese and Japanese forms I send blooms of R. Fortunei (very pale yellow, almost cream), Schlippenbachii (white, suffused rose), rubiginosum (light purple in whorls), racemosum, and a head of hybrid Prince Camille de Rohan, which with all the early sorts is full of flower. You will also find blooms of Camellia, O. Donkelaarrii and a plant from Japan, which has over 200 blooms on it; Ceraeus serrulata, 20 feet high, and a sheet of flower; Peach Klara Meyer, which ripens fruit as a standard; Menziesia empetrifolia, a charming Ericaceous plant from North America; Pittosporum Buchananii (wall), dark chocolate and fragrant; umbellatum, a Bay tree from California, hardier

than the common Bay, I think, very aromatic; and *Skimmia lauroleuca*, from the Himalayas. I also enclose a flowering spray of *Cornus Nuttallii* from North-West America, much earlier than its congener *C. florida* from the South-Eastern United States."

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**SUMMER BEDDING.**—This is now the principal work in the flower garden, and is being pushed forward as quickly as possible whenever the weather is favourable; but while the summer and autumn-flowering plants are receiving attention, the beds are being cleared of the spring-flowering plants. These must also receive their due share of attention, as if they are just thrown aside and neglected at this busy time, they are liable to be injured beyond recovery. Polyanthus and Primroses that have occupied the beds are now being removed and replaced by summer things. They should be divided and planted at once in nursery beds. The north border in the kitchen garden is a suitable place for these.

**POLYANTHUSES AND PRIMROSES** are easily raised from seed, which may be sown now on a shady border, the seedlings to be pricked out as soon as large enough, allowing them to remain in the nursery beds to flower, so that a careful selection of all the best can be made and increased by division. By this means a fine strain is obtained, selected to colour for bedding purposes. The remainder may be planted in the woods or naturalised in the grass.

**THE OLD DOUBLE PRIMROSES**, known as *Primula vulgaris alba plena*, *lilacina pl.*, *purpurea pl.*, *sulphurea pl.*, *rubra pl.*, and *rosea pl.*, require more care than the single kinds. It is necessary to give them shade and abundance of moisture to encourage a development of healthy foliage after flowering. They have a tendency to deteriorate unless they are divided up and planted thickly in groups in fresh soil, choosing sheltered places.

**ROCK CROSSES** are popular plants. *Arabis albidia fl. pl.* is an invaluable spring bedding plant, used with a charming effect as a carpet to beds of early Tulips or as an edging. This may be propagated in any quantity now by just dibbling in the cuttings on a shady border, where they will make good plants for bedding in the autumn. The purple Rock Cross, the oldest of the species, is called *Aubrietia purpurea*. *Aubrietia græca* has a dwarf habit and lilac-coloured flowers so profusely borne that the whole plant is hidden, but all are surpassed by the beautiful garden varieties that have been sent out within the last few years. The best that has come under my notice is *Priehard's Al.* This is a perfect gem among *Aubrietias*. The flowers are of a bright purple colour, it is free flowering, and of very strong habit. *Dr. Mules* is a very fine purple; *Hendersoni*, also purple; *Leichtlini*, a very bright rose; *Moerbeimi*, a splendid variety with pale, soft rose-coloured flowers; and *Souvenir de William Ingram*, very fine, having extra large flowers of a rose colour. *Aubrietias* may be divided now and planted in shady borders, keeping the soil moist till they become established, or if desired to propagate in large quantities, cuttings should be taken and dibbled into sandy soil in boxes placed in shady frames till rooted. These will make nice little plants for the next spring bedding. G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**CATTLEYS.**—The *Cattleya* house requires much attention at the present time. Such species as *C. gigas*, *C. Warneri*, and *C. gaskelliana* are

summer-flowering species, and have their growths in a forward stage. They should be placed at the warmest end of the house as near the roof glass as possible, and whenever the compost becomes dry they should be given enough water to moisten it through. *Cattleya Trianae* and the autumn-flowering *C. labiata* are also producing new growths, and should be placed under similar conditions, also *C. dowiana* and its variety *aurea*. *C. lawrenceana* and *C. Schroderae* have passed out of flower; they should be given a rest by placing them at the coolest end of the house and keeping the compost in a fairly dry condition, but on no account should the pseudo-bulbs be allowed to shrivel through lack of moisture at the root. *C. Mossii*, *C. Mendelii*, *Lælia purpurata*, *L. tenebrosa*, and numerous hybrid *Cattleyas* and *Lælio-Cattleyas* which are now producing their flower-spikes may be placed in a batch by themselves, and when in bloom they should be shaded earlier in the day in order to keep the flowers in a good condition for a longer period. Many of these species and hybrids which are producing their growths will now require attention at the roots with regard to repotting or resurfacing with new material, as the case may be. It is not advisable to disturb them unless the compost has become in a decayed condition or they require a larger receptacle. Any plant that has grown over the side of the receptacle should be repotted as soon as the new roots appear at the base of the young growths. In preparing the plant for its new pot, cut away the old useless back bulbs, leaving two or three behind the lead, and remove any decayed roots. Select a clean pot sufficiently large to carry the plant for at least two seasons, and fill to about one-third its depth with crock drainage.

**COMPOST.**—Although *Cattleyas* grow freely in proportions of leaf, peat, and sphagnum moss, the growths produced are very soft, and the plant, instead of taking its natural rest when the pseudo-bulbs are developed, commences to grow again, and consequently the flowers are very small. The compost which gives us the most satisfactory results consists of two parts *Poly-podium* fibre to one of sphagnum moss; in this mixture they produce much harder growths, take their natural rest, and produce much finer flowers than those potted in leaf compost. When repotting, place a little of the material over the crocks, then place the plant in position so that the back bulbs are at the side of the pot with the young growths as near the centre as possible, and work the compost between and about the roots tightly to within half an inch or so of the rim, and surface with chopped sphagnum moss. During the operations work in some broken crocks and coarse silver sand.

**THE NEWLY-POTTED PLANTS** should be placed in a shady position and watered carefully at all times, but especially so for a few weeks after repotting. It is necessary to spray the surface moss over once or twice a day in order to get it to grow. Keep the atmosphere well charged with moisture by damping the floors and syringing between the pots. Close the ventilators early in the afternoon; the lower ones may be opened again in the evening. Little fire-heat will be needed on bright days, but on cold dull days the temperature should be kept above 65°, and at night it should never fall below 60°.

W. H. PAOL.

Chardwar Gardens, Bourton-on-the-Water, Glos.

### FRUIT GARDEN.

**THINNING FRUIT.**—Careful attention is now necessary in this important detail of hardy fruit culture. If Peaches and Nectarines are thickly set with fruits, remove all badly placed ones, that is, those that are likely to be damaged by coming in contact with the branches, wires, or nails, reserving those fruits that are most prominent and taking the lead in size, but the final thinning should not be carried out until they have finished stoning. As a general rule, one fruit per square foot is sufficient for the largest

varieties of Peaches, and rather more may be left of those of medium size, as well of most varieties of Nectarines. The trees at this stage should be liberally supplied with water at the roots, and where a full crop is swelling liquid manure from the farmyard should be given frequently, or farmyard liquid manure applied in a weak state may be supplemented alternately with light dressings of sulphate of potash in the proportion of half a pound to thirty gallons of water. With young trees making strong growths only clear water should be afforded, but it must be liberally supplied during any protracted drought. Apricots, when finally thinned, may be left with twice the quantity of fruits recommended for Peaches, and the final disbudding or thinning of shoots should now be concluded; those left for extension and for laying in to fill vacancies, or to replace worn-out shoots, must be fastened to the walls or wires before they become too long. Those left to form spurs should be pinched at the third or fourth leaf, choosing growths on the upper and lower sides of the branches in preference to those pointing directly away from the wall. All coverings and portable copings may now be removed. Keep a sharp look-out for aphids, and apply an insecticide if any are noticed. The trees, even although quite clean, will be greatly benefited by a good syringing with clear water occasionally.

**SWEET CHERRIES, PLUMS, AND PEARS** also require attention in the thinning and stopping of the shoots, also thinning the fruits as soon as it is found they are well set. Plums that have set well generally retain a very large proportion of their fruits, and do not shed them so readily as others, so that it is necessary to remove a quantity of them in order to get good-sized fruits. The young growths issuing from the upper sides of the branches should be retained for laying in where required, all superfluous shoots being rubbed off, and those retained for forming spurs left a little longer before being pinched. Pears require to be dealt with in much the same manner. The trees generally produce more spur growths than are really required. One or two shoots on a spur are sufficient, and if the superfluous growths are entirely removed instead of being stopped year after year, improved crops of fruit will be obtained.

THOMAS WILSON.

Glamis Castle Gardens, Glamis, N.B.

### KITCHEN GARDEN.

**VEGETABLE MARROWS.**—Plant Vegetable Marrows out of doors in a well-prepared and sheltered situation. If room can be spared, a trench prepared as for Celery answers very well, placing the plants about 5 feet or 6 feet apart in the bottom of the trench; plant firmly and lightly peg down the stem so that it will not blow about. As nights are sometimes very chilly, even at this season of the year, it may be necessary to cover the plants, which can be easily done when planted in this manner by laying sticks across the opening and placing mats on top. Marrows will thrive well if planted on a prepared heap of decayed garden refuse and manure, as is often found in out-of-the-way corners; in this case it will be necessary to place hand-lights or other kind of protection over the plants for a time, peg down the growths, and cover at night if necessary. Marrows can also be successfully grown by training up stakes, but much more care and labour are necessary than by the two former methods. If the weather is not fine, and no bees are about when the first blossoms open, artificial pollination will be necessary to ensure early Marrows.

**TOMATOES.**—Tomatoes raised from seed in March and properly hardened off should now be fit for planting out into the places assigned to them; but whether against a wall or in a bed trained up stakes, it is necessary that they should be planted firmly. Unless fruit is set on the plants at the time of planting, no manure

should be added to the soil, but given as a top-dressing later. If planted against a wall, there is a certain amount of protection as well as warmth derived from the wall; but when planted more in the open, a protection of some kind must be devised until the plants are thoroughly established. Nail or tie them securely to the different supports, and pinch out any side growths. Tomatoes are more satisfactory when confined to one good stem.

**TURNIPS.**—Keep up a constant succession of Turnips; a position partly shaded should be chosen for present sowings if possible. The Turnip fly is making its presence felt very much this season, and frequent sprinklings with water, and also dustings with soot and lime, will be necessary to keep down this pest, which, if left alone, will very quickly spoil the crop.

**SPINACH.**—Owing no doubt to the past cold weather, spring-sown Spinach has not come on very fast with us, and it is only during the last few days that we have been able to pick any for use, having to rely on the winter crop. This ground should now be prepared for another crop; give a good dressing of manure, and also dig in the Spinach, which is a very good green manure. Ground that has been occupied by winter Spinach is very suitable for any crop that will come off before the end of the year. Cabbages or Cauliflower Autumn Giant would do very well; it is necessary to make frequent plantings of Cabbages to ensure a good succession. Fill up with fresh plants any gaps that may have occurred in the rows of Cauliflowers.

**SEAKALE.**—Disbud to one—or occasionally to two, if strong—the young growths on the Seakale that has been planted this season. When in good growth a light dressing of salt or nitrate of soda may be given and hoed and watered in.

J. JACQUES

Bryanston Gardens, Blandford.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**SINGLE AND DOUBLE STOCK FLOWERS (Americus).**—The question you send, "whether it is possible to pick out single-flowered from double-flowered Stocks whilst in a small state of growth," is in this country a very old one indeed. We have known it to be asked scores of times. Nothing indicative of the character of the flowers each plant will produce is to be seen until the flower-buds are formed. Then when sufficiently developed single-flowered buds are narrow and pointed, whilst double-flowered buds are broad and rounded. Many years ago a theory was propounded that all plants having straight or tap roots produced single flowers, and those plants having forked roots produced double ones. That was, however, a false assumption. The proportion of double flowers found in any

race of Stocks depends on the strain, and we believe somewhat cramped root growth in pots is more productive of double flowers than is free-rooting generous growth. Sometimes under the latter form of culture double strains become single entirely.

**CLEMATIS MONTANA (Clossy).**—We think that Clematis montana is as likely to succeed as anything on the archway which is under the shade of the Horse Chestnut, and we think you might plant it with reasonable prospect of success. With reference to taking away the turf round about the stems of standard fruit trees, this should be done for at least 3 feet all round, while 4 feet would be better. This simple work makes a great deal of difference to the growth of the tree and is a practice that should always be followed. Standard trees in grass land, around which the turf is allowed to grow close to the stems, become stunted in growth, and their progress is greatly impeded.

**NELUMBUM LUTEUM (Frank Jones).**—Nelumbium luteum is not hardy in this country, but it may be grown outside in summer in the South of England if planted in a warm tank or pond. The tubers should be planted so that they have 1 foot or more of water over them, or they may be planted in tubs so that they may be kept in a warm house during the winter only, placing them out in shallow water during the summer. If it is desired to plant these out permanently, a tank sunk below the ground level should be selected; then plant the tubers at the above-mentioned depth below the water. In autumn, as the leaves begin to die away, a covering of glass must be provided, while in winter a thick covering of straw or Bracken is necessary to keep out all frost. The latter covering may be removed in spring, but the glass should not be taken away till all danger of frost is over—about the end of May. Besides Nelumbium luteum there is N. speciosum and its several varieties, which may be grown under the same conditions. The compost in which it grows best is a good fibrous loam, with plenty of sand mixed with it. Drainage is important.

**HARDY PLANTS FOR SALE (Hopsal).**—Information respecting these can only be gained by practical experience, as it is impossible to say what will be profitable. One person would grow and make a certain plant pay well, while another would fail altogether. All the newer plants find a ready sale if they possess any merit at all.

**CLEMATIS RUBRA (Hof).**—We do not know a Clematis rubra, but there is a red-flowered variety of Clematis Viticella, which is probably the one referred to. If so, we should give the preference to C. Mme. Edouard André, which is a fine flower of the Jackmanii class, of a carmine-red colour, with a suspicion of violet. It is just the thing to associate with Ampelopsis Veitchii.

### FRUIT GARDEN.

**CHERRIES DAMAGED (Port).**—So far as we could tell from the Cherries sent, which, however, were almost shrivelled up when they reached us, we should say the damage was done by wood-lice. These are sometimes a perfect pest on wall fruit trees, and soon do a lot of damage if not destroyed. You do not say whether your tree is on a wall under glass or whether it is out of doors, but probably in either case the wood-lice hide near the base of the wall during the day. This being the case you could kill a great many of them by pouring boiling water along the base of the wall. You need not be afraid of damaging the roots of the tree for the water will have cooled sufficiently to be harmless to the roots before it reaches them. You may trap the wood-lice by taking quite small flower-pots, placing a freshly-out slice of Potato in each one, and filling up with dry moss. Then place these upside down in the trees and along the base of the wall. Examine them early next morning, and knock the vermin out into a vessel filled with hot water. You did quite right to bring Solanum Wendlandii into a warmer house, it will probably do better there. For the name of the Oncidium see "Names of Plants."

**VINE SHOOTS DISEASED (J. H. K.).**—Your Vines are suffering from an attack of a Vine mite. It is so small as to be difficult to distinguish even with a powerful magnet. It is not often one comes across a visit from this pest. The only way of getting rid of it is thoroughly to syringe every particle of the shoots every day for a week with a weak solution of Gishurst's Compound, or with the following emulsion: Two pounds soft soap, 2lb. sulphur, and half-a-pint of tobacco juice. Mix in two gallons of hot water until the ingredients are thoroughly incorporated. To three gallons of clear soft water add one pint of this emulsion, and syringe the Vines with it every afternoon for the time stated. In case any portion of the shoots is not reached by syringing, the sponge must be used to saturate that part. When the mite is killed, every effort must be made to help and encourage a free and healthier growth during the remaining part of the growing season, when you will find that your Vines will not suffer any permanent injury from the attack.

**GRAPES SHANKING (R. W. York).**—The most fertile causes of Grapes shanking are overcropping the Vines and the roots getting into a bad subsoil, or the border not being efficiently drained. As the Vines in this one particular border have always shanked, more or less, since they were planted, we are inclined to think that the border is at fault; most probably it is not properly drained, or the roots may have got through the prepared soil into the subsoil. Shanking is not hereditary, but arises from conditions, unsuited to the particular Vine addicted to this malady. Your best plan will be in the autumn, when most of the leaves have fallen from the Vines, to examine the border and try and find out where the roots have got to. We think you will find that either they have reached the subsoil, or the soil at the bottom of the border has become sour owing to bad drainage. Other things that may lead to shanking are destruction of foliage by red spider, removing too large a quantity at one time when stopping the shoots, sudden change of temperature in the house, or excessive dryness at the roots.

**FIGS DROPPING (G. S. S.).**—The cause of your Figs dropping prematurely is the want of fertilisation when in bloom. There are at least three reasons for this frequent barrenness in the Fig; one is allowing the trees to carry too heavy a crop. Like the Peach, it will cast off the fruit it is unable to develop fully. The remedy in this case is to thin the crop in good time before the fruit is in flower. The second reason is overcrowding the tree with foliage the previous summer during its season of growth. Under these conditions the best development and proper ripening of the wood which is to bear the first crop in the following year are impossible. The remedy in this case is to disbud the shoots in good time, and to take care the trees are not crowded with useless shoots and leaves. Too high a temperature at the time the fruit is in bloom will have the same effect; therefore this must be guarded against by lowering the temperature 7° or 8° night and day during this period, which usually lasts between a fortnight and three weeks. We do not think your border is at fault. If your trees make weak growth, lift them early this autumn and replant in new soil in the same position.

**BIRDS AND FRUIT TREES (W. J. Chapman).**—We are afraid we cannot credit the birds entirely with such good motives as you. It is very doubtful if sparrows, at any rate, do not destroy fruit-buds out of pure mischief; at any rate, we think it improbable that the birds destroyed all your fruit-buds for the sake of finding grubs. Such wholesale destruction as they appear to have wrought in your garden is most disheartening. We should have thought if you had thoroughly protected the trees with a double thickness of small mesh fish-netting this would have kept out the birds. It would pay you to



erect a wooden framework so that the quarter planted with fruit trees might be efficiently protected. You could leave the netting on all the summer; until, in fact, the fruits were gathered, taking it in during the winter to preserve it from the weather. Wire-netting would make a more permanent structure, but then it is much more expensive. We think possibly you have been pruning and root-pruning your trees too much. The more you hard prune the shoots of Apples and Pears the less likely are you to get a crop of fruit-buds. A judicious thinning out is often all that is required.

**FIGS DAMPING OFF (R. W.).**—The cause of your Figs decaying at the apex of the fruits as they are about to ripen lies, we think, in having too much moisture in the atmosphere, accompanied with too much crowding of foliage, making the circulation of air among the fruit difficult and inadequate. The remedy is to overhaul your trees, thinning out the weak shoots and any other surplus ones not required for furnishing the trees with fruit-bearing wood for next year's crop. Give more air during warm weather, and defer closing the house for an hour later in the afternoon, damping the walls, borders, and paths when doing so, but not the trees. Until the difficulty is over, the trees should only be syringed once a day, and that in the morning. Leave a small chink of air on the house during the night, and slightly increase the fire-heat at the same time. You will find the trouble will soon disappear.

**DISEASED VINES (W. H.).**—It is no matter for wonder that your Vines should this year have made exceptional wood growth, and now are seriously affected with fungus. With a border advised to be sour, the proper course would have been last November to have removed the top soil, lifted the roots, removed several inches of the bottom soil and replaced it with loam, wood ashes, and soot, then have relaid the roots and covered them with similar fresh soil, to which was added one-fourth well-decayed manure, lime refuse, soot, and wood ashes again. In such a compost the Vines would probably have done well and been very healthy. Your treatment of the border was as improper as could well have been, and just calculated to provoke disease. You should remove all the manure down to the lime, also much of that, to allow sun warmth to get to the roots. Give thirny free ventilation, but do not admit cold draughts. Dust the foliage freely with sulphur, and get all plants outside as soon as you can. Replanting the Vines will be the best remedy.

## ROSE GARDEN.

**SWEET BRIAR HEDGE (Flora).**—The Sweet Briars properly need no spring pruning, but the way to treat them is—in July, after they have done flowering—to cut out some of the older shoots where they are crowded, in order to give the younger ones a chance of making better growth. The best thing you can do is, when the flowers are over, to cut out all the old worn-out shoots, so as to encourage the production of young ones from the base. If you persist with this treatment and, at the same time, give the hedge liberal treatment by mulching with manure in spring, we think it will in time greatly improve.

**FAILURE WITH BUDDED STANDARD BRIARS (C. Skilton).**—As you have now budded Roses for several seasons, the failure of your budded Briars is not owing to the germ of the buds being pulled out with the wood. We have known heavy failures from that cause alone. Faulty binding would account for many deaths, and if you had used raffia for the first time last season this would, perhaps, account for your failures. The raffia should be used nearly in a dry state; if it is wetted it will slacken when dry. Are you sure the stocks were in a fit condition when budded? As you know, there should be a perfectly free opening of the bark, and if the stocks are not budded just when the sap is flowing freely there are numbers of buds that do not "take." In nurseries it is usual to examine the buds after they have been budded about a month, and if any buds are dead, fresh ones are at once inserted. If this were not the case, then the heavy rains, with spring frosts and close proximity to the river bed, would account for many deaths. If you are certain the buds are dead, cut back the branches to the old stem, and the Briars will send out new growths, in which you can try again.

**ROSE FOLIAGE DISCOLOURED (Winifrede Ducat).**—The discoloured foliage arises from the uncongenial spring we have had. Where Roses are pruned early or not pruned back sufficiently the early growths generally suffer in this

way. Of course, it is a check to the health of the plants; but no material harm arises, providing the soft wood be not injured. Frequently we have hailstorms and cold east winds when the foliage is well advanced, with the result of this disfigurement. Do not attempt to interfere with the foliage, but just let it alone, and we think you will find by June that the foliage now unfolding will hide or replace that which is now blighted.

## MISCELLANEOUS.

**QUICK-GROWING CLIMBER (Hopeful).**—Ivy would be the most suitable evergreen climber for this purpose. The Hop may be planted any time during the late autumn, winter, or spring. It may either be grown from seeds, or the old plants may be divided up and increased in this way. Its proper name is *Humulus Lupulus*.

**HEATING GREENHOUSE (Amateur).**—We should prefer your second plan B for heating your greenhouse, as the idea of a reducing elbow is quite practicable. At the same time we think an improvement even on that would be to carry the 4-inch piping as far as D, using the reduced size only for the frame. A valve at D would enable you to keep the frame cooler than the greenhouse, if required.

**TREE SEEDS (Hopeful).**—This is a somewhat difficult question to answer, for everything depends on the freshness of the seeds and the manner in which the plants are treated after the seeds have germinated. Some of these seeds will lie two years before germinating. They are all perfectly hardy, but it is doubtful if they would pay to grow for seed, as some of these mentioned would not produce many, if any, seeds under twenty years.

**MOLES IN GARDEN (A. J. Dew).**—Moles are chiefly carnivorous; they feed on insects, earthworms, &c., and occasionally vegetable matter. In gardens they do much damage to flower borders by cutting the roots of the plants, and their earth-heaps render the garden very unsightly. The best way to get rid of them is to lay traps in the burrows or runs. The animals are very wary, and special precautions need to be taken to prevent the smell of one's hands remaining about the traps. If you have many moles in your garden, you would probably do best to employ a mole-catcher.

**LIQUID MANURE (H.).**—When liquid manure smells offensive it is very evident that it is being applied too strongly. As a rule proper liquid manure emits very little smell, and, indeed, is rarely found offensive. Certainly the soil is a speedy deodoriser. You do not state of what materials your liquid manure is composed, whether of sewage, or from animals, or from chemical compounds. In all cases the proportion of water added to the original matter should be fully three-fourths. The best course is to have large tubs placed in a retired corner of the garden, keeping these filled with the material creating the manurial matter and water. It is also a good plan to have in each a coarse bag containing from one to two pecks of soot to soak, these being renewed each fortnight. Soot, whilst a capital manure on utilised, also acts as a deodoriser. Exposure of the liquid manure in tubs also tends to deodorise or sweeten the liquid and render it more fit for application in warm weather, without detracting from its merits. It is rare that liquid manure applications creates offence.

**BLACK VINE WEEVIL (Beetle).**—The insect attacking your plants is the black Vine weevil (*Otiorhynchus sulcatus*). This is a most destructive pest, for the grubs are almost as injurious to plants as the beetles, for they feed on the roots of a great number of plants, *Ferns*, *Cyclamens*, *Primulas*, *Begonias*, &c. The only way of destroying the grubs is to pick them out from among the roots. As regards the weevils they usually feed after it is dark, remaining hidden during the day under some shelter. If there is any moss in the pots or baskets in which your Orchids are growing you would probably find them in it. These insects when alarmed drop from the plants as if dead. When they attack plants in pots it is useful to spread a sheet on the ground, and lay the plants on their sides on it, then when it has been dark for a hour throw a bright light suddenly on the plant, or give it a good shake, and the beetles, if any are on it, will fall on to the sheet, where they can easily be seen and picked up. Laying small bundles of hay or dry moss at the base of the stems of the plants, or among their shoots, afford the insects convenient shelter to hide; these traps should be examined every morning, taking care that on opening the bundles the beetles do not drop out unseen. I am sorry that I cannot recommend any wholesale method of destroying this pest.—G. S. 8.

**MILLIPEDS (T. J. Maloney).**—Unfortunately you had not packed the box in which you sent the insects in the soil from your Violet frames full, in consequence the soil, as it always does when damp and packed loosely, rattled about and formed into a number of small balls round the insects. On looking them in water I managed to find the remains of several specimens of one of the millipedes, but not a trace of any insect or green worm. They were evidently crushed and broken beyond recognition, so I cannot even hazard a guess as to what they were. I should imagine, however, that the millipedes were the cause of the injury to your Violets, as they are among our most mischievous pests, and are very difficult to destroy. Insecticides are of no use in dealing with these creatures, as their skins are so thick and horny that few have any effect on them, and the few would have to be used of such a strength that the plants would be killed as well as the pests. They may, however, be trapped by laying bricks, tiles, pieces of slate, board, or turf about on the ground where they are; they will often hide under such things, or you might bury small pieces of Turnips, Mangolds, Carrots, or Potatoes just below the surface near their haunts they are often attracted by these baits. If you fasten a small wooden skewer into each they will be more

readily found and handled. These traps should be examined every morning.—G. S. 8.

**NAMES OF PLANTS.—G. C.—1, Sprekella formosissima; 2, Asystasia bella (Mackaya bella); 3, Ixia patens. J. C. D.—Rhododendron Edgeworthii. Emile Thibault.—Laurus nobilis var. angustifolia. T. H. H.—The name of the fungus is Geastrum stellatum. J. Ferguson.—Veronica serpyllifolia, a common British plant, that was probably introduced to the lawn with the turf.—J. Henshaw.—1, Saxifraga hypnoides; 2, S. cespitosa; 3, S. crustata; 4, Fritillaria pyrenaica; 5, Phlox amona; 6, Helianthemum vulgare var. hyscopifolium. Manz.—Dendrobium chrysotoxum. Raleigh Willmott.—1, Nephrodium setigerum; 2, Pelargonium spillofolium; 3, Adiantum Capillus-Veneris; 4, Polypodium sporocarpium; 5, Davallia pallida (Moorei). C. Skilton.—1, Geum coccineum; 2, Nepeta Mussinii; 3, Omphalodes verna; 4, Ornithogalum nutans; 5, Oxalis Acetosella; 6, Scilla hispanica alba; 7, Dactylis glomerata variegata. W. T.—The green Primrose is a fairly well-known variety, and is occasionally met with growing wild.—C. B. A.—Himantophyllum miniatum. Pert.—Oncidium flexuosum. F. E. Lk.—One of the numerous seedling forms of double Polyanthus which have no distinct name.—E. A. B.—1, Pyrus floribunda var. atrosanguinea; 2, Daphne pontica; 3, Cytisus proreox; 4, Prunus Padus (Bird Cherry); 5, Cytisus versicolor; 6, Ribes alpinum; 7, Amelanchier vulgaris.**

## LEGAL POINTS.

**SERVANT'S LIVERY (Coachman and Gardener).** In the absence of express stipulation livery belongs to a master, but in many cases it is provided that the livery shall become the servant's property after he has worn it for a certain time. It is well to have an express understanding about this matter so as to avoid disputes.

**PREPARATION AND COST OF LEASE (Perplexed).** A lease is usually prepared by the lessor's solicitor, and the draft is submitted to the lessee's solicitor for his approval. He makes such alterations as he considers necessary, and returns the draft to the lessor's solicitor, who engrosses the document if he is prepared to accept the alterations. A lease is usually engrossed in duplicate, one copy being signed by the lessor and the other by the lessee. The copy (or part, as it is called by lawyers) signed by the lessor is known as the lease, and the copy (or part) signed by the lessee is known as the counterpart. The lease is delivered to the lessee, and the counterpart to the lessor. The costs of the lessor's solicitor are payable by the lessee.

**INCOME TAX: ALLOWANCES IN RESPECT OF LIFE INSURANCE (Hard-up).**—An allowance from the amount of income assessed may be claimed by any person who has insured his life, or the life of his wife, or who has contracted for any deferred annuity on his own life or on the life of his wife with any legally established insurance company or friendly society. The allowance is limited to an expenditure on annual premiums not exceeding one-sixth of the claimant's net personal income from all sources, and has not the effect of giving exemption or abatement where the total income is thereby reduced below the statutory limits. In order to secure the allowance the taxpayer must fill up the form which will be found on page 2 of the return and, if required, produce the premium receipts to the surveyor of taxes.

## SUTTON'S RECREATION CLUB.

FOR many years past the employees of Messrs. Sutton and Sons have, with the generous assistance of the partners, enjoyed various sports, but hitherto these have been run as separate clubs. With the addition of other pastimes it was, however, considered desirable to merge the whole under one general committee, and just now there is in progress at the Royal Seed Establishment the formation of a recreation club which will embrace all the popular sports. Membership will be strictly limited to employees of the firm. The partners have provided as a recreation ground a large portion of the grounds and land formerly belonging to Cintra Lodge, which were beautifully laid out by the late Mr. Martin Hope Sutton. A strong representative committee has been elected, on which figure the names of many "old sports." Mr. Martin Hope Sutton is the first president of the club, and he is seconded by Mr. Arthur W. Sutton, Mr. Leonard G. Sutton, Mr. M. H. Foquet Sutton, and Mr. E. P. Foquet Sutton as vice-presidents. Mr. W. J. Brown is chairman of committee, and Mr. A. H. Leaver and Mr. W. Shipway are the hon. treasurer and hon. secretary respectively.

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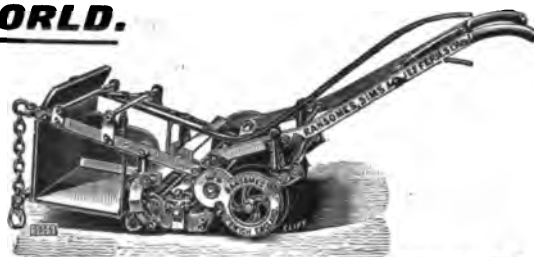


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## SOCIETIES.

## ROYAL HORTICULTURAL SOCIETY.

## NARCISSUS AND TULIP COMMITTEE.

**PRESENT:** Mr. J. T. Bennet-Poë (chairman), Messrs. W. Fournier, James Walker, John R. de C. Boscawen, T. W. Leak, R. W. Wallace, J. D. Pearson, P. R. Barr, Alex. M. Wilson, G. Reuthe, Walter T. Ware, E. A. Bowles, G. S. Tetheridge, Robert Sydenham, C. H. Curtis (hon. secretary), and the Rev. J. Jacob.

Messrs. Walter T. Ware, Bath, exhibited a splendid lot of Tulips, several of which obtained awards from the committee. The finest of them are described under new Tulips.

Among the Tulips shown by Messrs. Barr and Sons in a large and representative exhibit the Darwins were especially good. The Sultan, almost black; Clara Butt, rich pink; Europe, cerise; and Rev. H. Ewbank, light purple, were some of the most distinct. The cottage Tulips included *gesneriana spatulata*, *g. lutea*, Leghorn Bonnet, and Mrs. Moon, all good yellows; Fulgens, dark crimson; Yellow Hammer, yellow flushed with scarlet; vitellina, primrose marked with green; and other beautiful sorts. Silver Banksian medal.

Messrs. B. W. Wallace and Co., Kilnfield Gardens, Colchester, arranged a pretty bank of Darwin and cottage Tulips, including many fine sorts. The Darwins comprised La Tulipe Noire, a very handsome flower almost black; Provost Exillier, purplish; Salmon King, salmon red; Clara Butt, rich pink; Calliope, rose; King Harold, dark crimson, a fine flower; Marie, bright cerise; Glow, crimson-scarlet; and many more. Among the cottage Tulips *gesneriana lutea pallida*, Maid of Honour, cream splashed with red; trikolours, yellow; vitellina, primrose; and Picotee, white with rose edges, were beautiful flowers. Silver-gilt Flora medal.

Mr. A. M. Wilson, East Keel, Spilsby, Lincoln, exhibited a group of Tulips in many fine sorts. Among the cottage sorts, which were out with remarkably long stems, Golden Crown (yellow, flushed scarlet), fulgens (crimson), elegans alba, Picotee, and vitellina were very beautiful; while among the Darwins Loveliness, rose; Flambeau, crimson; Mrs. F. F. Sanders, red; Corridon, purple; and Suzon, pale salmon rose, were noticeable. Rink Beauty, white and scarlet, is a large, handsome Tulip. Silver Flora medal.

The Tulips exhibited by Messrs. Hogg and Robertson, Rush, County Dublin, were very bright and varied, and made a most attractive display. Yellow Queen, Mrs. James Robertson, lutea major, Admiral Van Constantino, and Mark Gray (three handsome Parrot Tulips), Mrs. Moon (a lovely yellow flower), La Candeur (white, flushed with rose-purple), Leghorn Bonnet, and many fine Darwin sorts were shown. Silver Flora medal.

Messrs. E. H. Bath, Limited, the Floral Farms, Wisbech, showed a beautiful lot of Darwin and cottage Tulips. The former, which were chiefly represented, comprised many fine sorts, such as Suzon, salmon; Ant Roosen, bright rose; William Pitt, bright red; Fairie Queen, purple and gold; and Clara Butt, rich pink. Others shown were elegans variegata, retroflexa, Parrot Tulips, and many charming cottage sorts. Silver-gilt Banksian medal.

Messrs. A. Dickson and Sons, Limited, Newtownards, showed a large collection of Tulips, the Darwins being especially good, e.g., Gold Vase, yellow flushed with purple; Phalcia, deep rose; Paliza, purplish and red; Ergute, pale purple, and Europe, scarlet. Golden Crown, Inglescombe Pink, *gesneriana lutea pallida*, Alida, Buntou d'Or, elegans alba, and others were among the May-flowering Tulips. Silver Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited Tulips in variety, Darwin and cottage varieties being included. Among the latter, vitellina, Inglescombe Scarlet, *gesneriana*, Snowdon, La Merveille, Didieri alba, elegans alba, and others were beautiful. Retroflexa, with its rich yellow reflexing segments, was one of the most distinct.

Messrs. William Bull and Sons, King's Road, Chelsea, exhibited Tulips in considerable variety. The Darwins were especially well represented. Europe, rose; Zulu, purple maroon; Sarah Bernhard, salmon rose; Paul Boudry, dark purple; André Doris, red maroon; Mrs. F. Sanders, cerise; and others were exhibited. Picotee, Sweet Nancy, Parisian White, La Merveille, vitellina, and other cottage sorts were also shown.

## NEW TULIPS.

An award of merit was granted to each of the following: *Gesneriana lutea*—Beautiful soft yellow cottage Tulip. Hartland 3-sns, Cork.

*Homer*.—Dark crimson Darwin.

*Millett*.—Dark red Darwin, large flower.

*Psyche*.—A Darwin variety, rich silvery rose.

*Iris*.—A large Darwin variety, with broad, rich red petals.

The above four were shown by Messrs. Wallace and Co., Colchester.

*Beauty of Bath*.—A long flower (Darwin), primrose flushed with bronze.

*Yellow Picotee*.—A typical yellow form of the well-known cottage Tulip-Picotee.

*Inglescombe Yellow*.—A handsome canary yellow, Darwin variety.

*Walter T. Ware*.—A very fine flower, rich orange in colour; one of the most showy cottage Tulips we have seen. The above four were shown by Messrs. Ware and Co., Bath.

## FRUIT AND VEGETABLE COMMITTEE.

**Present:** Mr. George Bunyard (chairman), Messrs. S. Mortimer, A. Dean, H. Parr, George Kelf, Edwin Beckett, J. Davis, John Lyne, W. Barnes, G. Reynolds, J. Willard,

P. C. M. Veitch, C. Foster, J. McIndoe, Owen Thomas, H. Somers Rivers, and A. R. Allan.

A silver Banksian medal was awarded to Lord Aldenham (gardener, Mr. Beckett) for a collection of Lettuces in several varieties. Buttercup and Golden Queen appeared to be the best.

A silver Knightian medal was awarded to an exhibit of Peach trees in pots bearing fine crops of fruit shown by Messrs. T. Rivers and Sons, Sawbridgeworth. The Peaches were of the early varieties Duke of York and Duchess of Cornwall; both were well coloured.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited some Apples in excellent condition. Such as Cox's Orange Pippin, Bess Pool, Wellington, Newton Wonder, Northern Greening, Barnack Beauty, Beauty of Kent, Wadhurst Pippin, King of Tompkins's County, and other varieties were finely shown. The fruits were firm and well coloured. Silver Knightian medal.

Some fine Strawberries, evidently of the variety Royal Sovereign, were shown by Lady Plowden, The Gardens, Aston Rowant, Oxford. Silver Banksian medal.

A collection of Vegetable Marrows, Cucumbers, Tomatoes, Lettuce, and Strawberries from the Horticultural College, Swanley, evidenced excellent cultivation.

Mr. S. Mortimer, Rowledge, Farnham, exhibited some good fruits of Tomatoes—Sunrise and Winter Beauty. The former is a rather small round fruit, while the latter is large and flatish.

Bunches of Tomato Early Sunrise, a small round fruit, was shown by Mr. E. Beckett, Aldenham Gardens, Epsom. The new Rhubarb, Hobday's Giant, was shown by Messrs. Outbush and Son, Higgate.

Mr. A. W. Metcalfe, gardener to Sir T. Werner, Bart., Luton, Hoo, Beds., exhibited a new Cabbage Lettuce called Winter Superior, which seemed of excellent quality.

An award of merit was granted to Broccoli Fearless, shown by Messrs. Kent and Brydon, Darlington.

## UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE usual monthly committee meeting of this society was held at the Royal Horticultural Hall, Vincent Square, Westminster, on Monday, the 14th inst., Mr. Charles E. Curtis in the chair. Ten new members were elected and one nominated. Two deaths were reported, and the amounts standing to the credit of the deceased members were granted to their nominees respectively. Nine members were reported on the sick fund. The amount paid for sickness since the last meeting was £29 8s.

## EAST ANGLIAN HORTICULTURAL CLUB.

THERE was a large gathering of members of this flourishing club at the May meeting. The exhibition tables, both in the competitive and non-competitive sections, were well filled from Messrs. Hobbies, Limited; W. Palmer, gardener to I. B. Coaks, Esq., Norwich; C. Bartschaw, gardener to H. Skelton, Esq., Norwich; H. Perry; C. H. Fox, gardener to Sir E. B. Mansel, Catton; T. Notley, gardener to E. G. Buxton, Esq., Thorpe; W. Shoemith, gardener to F. W. Harmer, Esq., Cringleford; Mr. W. Smith, gardener to E. J. Caley, Esq., Thorpe, and others. An essay competition upon "The History and Cultivation of the Plum" brought out five essayists. After the papers had been read the awards were given as follows: First, J. Ewing, Cringleford; second, C. H. Fox, Catton; third, A. F. Cooke, Norwich. The subject of the summer outing was brought forward, and it was decided to visit Shotesham Park and Shotesham Rectory, both noted for their floral beauties.

## THE ROYAL BOTANIC SOCIETY.

THERE was a good display of flowers at the exhibition held in the grounds of this society at Regent's Park recently, and in the afternoon

Gold medals were awarded to Messrs. J. Waterer and Sons, Limited, Bagshot, for a large group of plants in pots of their beautiful Rhododendron Pink Pearl, the plants being very finely flowered; to Mr. George Mount, Canterbury, for a delightful exhibit of cut Roses in many varieties.

Large silver-gilt medals were awarded to Messrs. Barr and Sons, King Street, Covent Garden; E. H. Bath, Limited, Wisbech; R. W. Wallace and Co., Colchester; and to Hogg and Robertson, Dublin, for splendid exhibits of Tulips in many Darwin and cottage varieties.

Silver-gilt medals were given to Messrs. T. S. Ware, Limited, Feltham, for a bright display of Begonias, Carnations, and hardy flowers; Peed and Son, West Norwood, for a group of Acers, alpinas, and Gloxinias; and to Hugh Low and Co., for Carnations, Schizanthus, &c.

Large silver medals were awarded to Messrs. Ames Perry, Winchmore Hill, for his beautiful Phlox; Charles Turner, Slough, for Azaleas; and G. Reuthe, Keston, Kent, for hardy flowers.

Silver medals were awarded to Messrs. William Paul and Son, Waltham Cross, for a group of the new climbing Rose Kathleen and others; W. and J. Brown, Stamford, for Heliotrope, Pelargoniums, &c.; Sir F. Tress Barry, Bart., Windsor, for Camellias, Azaleas, and Rhododendrons out from the open; and to Mr. N. Lewis, Bridgwater, for Anemones.

Mr. S. Mortimer showed Tomatoes Sunrise and Winter Beauty, the former, a rather small, round, red fruit, receiving a first-class certificate.

Walpole Greenwell, Esq., Marden Park, Caterham (gardener, Mr. Lintott), exhibited some interesting spathes of Calla elliptica; one was double, and the other was partly foliaceous. Some splendid Malmaloon Carnations were shown by Lady Alice Dundas, West Stoke House, Chichester.

Mr. J. Williams, Oxford Road, Ealing, exhibited the rural table decorations; Bruce's Flower Displays were shown by Mr. G. H. Sage, Manor Road, Richmond; and Val's Beetles, for killing cockroaches, beetles, &c., was shown by the proprietors.

The Misses Hopkins, Mere, Knutsford, Cheshire, exhibited the beautiful pink Daisy Alice and other hardy flowers.

**The "Mummy" Wheat.**—I have been very much interested in the paragraph appearing on page 242 of THE GARDEN entitled "The Indestructibility of Life." Some years ago I was present when a statement was made about the remarkable results obtained from sowing Wheat taken from the hand of a mummy. I mentioned the matter to the late Mr. Peale, our parks superintendent, and he altogether scouted the idea of there being any truth in the statement. Recently, however, I have again heard it stated from the pulpit, by way of illustration, that Wheat from the hand of one of the Pharaohs had on being sown given remarkable results in yield. From your footnote to the paragraph it appears likely you have already dealt with this subject in your paper, but as others like myself may not have noticed it, or may not have been readers when it appeared, I venture to suggest that a statement from you would prove of much interest to many. — *MUNICIPAL, Hull*. [This question occurs from time to time, in spite of all that has been written on the subject to prove that it is impossible for grains of Wheat kept so long to germinate. It appears that about sixty-five years ago a dozen grains of Wheat were sent home from Egypt by a gentleman who said that he had taken them out of a vase which had been found in one of the ancient tombs which contained a mummy. These were sown, and one plant was said to have been raised which bore two poor ears. Various experiments have since been made to test the truth of this supposed germination of one of the grains from the mummy tomb, but without any success, and it is clear that there was a mistake somewhere, either the grain which germinated never came from Egypt, or it was a recent one which had not been buried for centuries. On examination of the Wheat which has undoubtedly been buried it is invariably found on examination with a microscope that the embryo is destroyed, although the starch cells, of which the rest of the grain is chiefly composed, still turn violet in colour when iodine is applied to them, just as newly-made starch will. Modern Wheat, if kept for ten years, will not germinate, so that it is not credible that Egyptian Wheat harvested some 3,000 years ago, even though it may be of a somewhat different nature to our Wheat, and have been preserved under particularly favourable conditions, could retain its vitality for such a length of time. There is no doubt that Wheat and other seeds and fruit have been found in the ancient Egyptian tombs, and even flowers in such a good state of preservation that their colours even were retained, but on exposure to the air they soon fell to pieces; there was no vitality in them.—*Ed.*]

## CATALOGUES RECEIVED.

*Plant Catalogue*.—V. Lemoine et fils, 134, Rue du Monteb, Nancy, France.

*Seed-supply Supplies*.—E. H. Taylor, Welwyn, Herts.

*Dehlias*.—T. S. Ware (1902), Limited, Feltham, Middlesex; Keynes, Williams, and Co., Salisbury.

*New Roses*.—William Paul and Son, Waltham Cross, Herts.

*Water Lilies*.—R. Wallace and Co., Kilnfield Gardens, Colchester.

*Fruit Trees and Ornamental Trees and Shrubs*.—Thomas Cripps and Co., Limited, Tunbridge Wells.

*Summer Bedding Plants*.—William Watson and Sons, Clontarf Nurseries, Dublin.

*Plants*.—E. P. Dixon and Sons, Limited, Hull.

**ERRATUM**—In our report of the exhibits shown before the Royal Horticultural Society on the 15th inst. it was incorrectly stated that the first diploma was awarded to *Mittonia vexillaria superba* from Jeremiah Colman, Esq.; the first diploma was awarded to the very beautiful *Mittonia vexillaria memoria* G. D. Owen exhibited by Sir Frederick Wigan, Bart., Clare Lawn, East Sheen (Orchid grower, Mr. W. H. Young).

\*. \* The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 6d.

# THE GARDEN.

No. 1802.—VOL. LXIX.

JUNE 2, 1906.

## THE WISTARIAS.

**A**MONG the stronger growing climbers that are hardy in Britain—and the Wistarias are, perhaps, the most robust of them—none equal the best members of this genus in the gorgeousness of their flower beauty. The old *Wistaria chinensis*, a denizen of our gardens now for ninety years, is, of course, the best known of them all, but, beautiful as it is, I am inclined to think that it is surpassed by the best forms of *W. multijuga*. In recent years some very charming varieties of this latter species have been introduced.

Like so many other genera of plants, Wistarias are represented on both the American and Asiatic continents, although but one species—*W. frutescens*—is found in America. At present five species are known, no new one having been added to our collections for over thirty years, and I have not heard that the explorations of Dr. Henry, Mr. E. H. Wilson, or other travellers have brought any new *Wistaria* to light.

The name perpetuates the memory of Caspar Wistar, an American scientist who flourished about the end of the eighteenth century. It is often wrongly spelt *Wisteria*, in which form it is very popular in remote suburbs, as a name for a "cottage" or "villa," where, as a rule, no other evidence of its presence exists.

Whilst Wistarias are not particular in their requirements, a few conditions are requisite if they are to be seen at their best. They like a rich soil, plenty of moisture, and abundant sunlight. *W. chinensis*, the only species that has, as yet, obtained a really wide foothold in gardens, is usually grown on the south side of a house or wall; and in no other position can it be seen to better advantage. It is, however, very attractive trained in other ways, as, for instance, on a pergola.

At Kew, an old plant near the Sun Temple, which many years ago grew against a dwelling-house that stood there, was trained on a large, cage-like structure when the building was pulled down. This it long ago completely covered, and it is now a very striking object every year when in flower. The drawback to such an arrangement is, of course, that unless one has a big plant to

start with, the structure that has to be covered may be somewhat of an eyesore till this is accomplished.

In nature, I suppose, this and other strong-growing Wistarias climb to the top of and ramble over other trees. That Nature may very well be copied where occasion offers is shown in Mr. Anthony Waterer's nursery at Knap Hill, where, if I remember rightly, the white variety and the double-flowered variety of *W. chinensis* are to be seen growing on other trees. I know there is, or used to be, a mauve-flowered *Wistaria* growing on a Laburnum, for I have a vivid recollection of seeing both in flower at one time, and a very striking picture the commingled yellow and mauve racemes made.

Then, if space be a consideration, both *W. chinensis* and *W. multijuga* may be grown as bushes simply by keeping them pruned back to the required size. Good examples of this mode of culture are exhibited at the Horticultural Hall in spring in collections of forced plants, although, of course, they are grown in pots.

Of *W. chinensis* there are besides the type three varieties in cultivation—*flore-albo* (white), *flore-pleno* (double), and a variegated form of which not much in favour has, I think, to be said. As to

*WISTARIA MULTIJUGA*, I am of opinion that it is one of the most beautiful of all hardy shrubs that have come into prominence in recent years. Twelve years ago but little was heard of it, although about that time some fine racemes, nearly or quite 3 feet long, were shown at the Temple Show. It is rather remarkable that it escaped general notice so long, for it is the *Wistaria* that is so popular in the Japanese tea gardens. Many pictures of remarkable specimens in Japan have been published in recent times, but often they are described as *W. chinensis*, in spite of the racemes streaming down 3 feet or more in length.

This length of raceme is the chief distinction between this species and *W. chinensis*, but the flowers, instead of being closely set together, are arranged more sparsely. What they lose in number they gain in elegance. Compared with the older species the leaves of *W. multijuga* are made up of more leaflets, which are also smaller, of a brighter green, and smooth. It flowers three weeks later than *W. chinensis*. It requires the same

conditions, and may be trained in the same way, except that an arrangement which allows of the racemes hanging clear is to be preferred. The favourite Japanese way appears to be to train it on an overhead trellis.

Of *W. multijuga*, a very beautiful pure white variety is now to be had (the type has flowers of mixed violet, blue, and white). And M. Leon Chenault of Orleans has offered for a few years past a rose-coloured variety (*rosea*). This is grown at Kew, but has not yet flowered; it is, however, very highly spoken of. Turning to the three remaining species there is but little to be said. They are more suited to establishments where an effort is made to form collections than to those where the best of each group only can be found room for.

*W. FRUTESCENS* is a native of the South-East United States, and is a climber. In this country it is far from being as robust a grower as the two previously mentioned. It has bluish-purple flowers, closely packed in cylindrical racemes 3 inches to 6 inches long. A superior form with racemes 8 inches to 1 foot long is known as *magnifica*; there is also a white variety (*flore-albo*).

*W. BRACHYBOTRYS* is not well known. It was discovered by Siebold in Japan, and was introduced about 1830. It appears, however, to have been nearly or quite lost to cultivation until, within the last decade, it appeared again. The flowers are described as purplish-blue.

*W. JAPONICA* is a white-flowered species rarely seen in gardens and inferior in merit to all the others. It flowered in Messrs. Veitch's nursery at Coombe Wood in 1884, and is still grown there, the original plant, I believe, having been sent home by Maries. The racemes are branching, very slender, and about 1 foot long.

W. J. BEAN.

## THE PROTECTION OF WILD FLOWERS.

"To the true lover of Nature wild flowers have a charm that no garden can equal." So says Lord Avebury, and though in such a magazine as this the assertion may seem bold, there are many of its readers who agree with him. Horticulturists are bound to take an interest in wild species. Wild plants and flowers have contributed more, far more to the happiness of man than any



wealth of gold or precious stones, not only because they have given us the dear delights of cultivating and turning many of them into field and garden plants for use and ornament, but also because of the charm of their spontaneity and the force of their natural characters and qualities.

What shall we do, we English people, when there are no more wild flowers in our land to love and learn from? Ruthless is the destruction of them that is going on. If nothing can be done, and soon, to stem the flood of devastation, all, yea, all of them except the very rankest weeds, will disappear. The very efforts that we make to teach our people the worth and beauty of flowers seem but to work against us. Who can doubt that the tantalising effect of seeing sweet flowers in parks and public places, that only can be gazed at and never touched, has visible results in the grabbing of every blossom that seems free?

It may help us in considering the question of wild flower protection if we make a list of all the known causes of their loss. These fall into two classes—the inevitable and the avoidable. Lastly, we will try to think of remedies.

Civilisation itself must be put down in the front rank of inevitable causes. In its advance it is inevitable that the native flora of any place must suffer. Forest-clearing, drainage, agricultural improvements and extensions, building and quarrying, these things push plants and flowers aside. Agriculture is, perforce, the means of exterminating many a plant the wild-flower lover will regret. The purple Corncockle (*Lychnis Githago*), the blue Cornflower (*Centaurea cyanus*), even white and yellow Ox-eye Daisies and the gay Poppy are less common field-flowers now than they were thirty years ago.

The extension of buildings round our towns must go on; it is a necessity of modern life, and to the claims of agricultural, industrial, and financial activities we must bow, making the most of our quiet railway cuttings and all uncultivated margins; but there is no reason why we should not protect from the hand of the destroyer certain beauty spots of England which are known to be the home of some of our rarest species—such spots as the gorge of the Bristol river Avon at Clifton, the Cheddar Rocks, and the gorge of the flower-strewn river Wye. We would plead, too, for protection of some areas of bog and fenland, where drainage is robbing us of priceless treasures. And there are sandy stretches of the seashore which fifteen years ago were blue in summer-time with the exquisite wild Sea Holly (*Eryngium maritimum*). Where are they now, those drifts of dim blue flowers, mid leaves of silver that shadowed back the colours of the sky? Alas! they have been rooted out by careless hands in all directions at all accessible by man. It so happens that the roots of the Sea Holly are edible, but it is a thousand to one that any more sensible use was made of any of these torn-up plants than the brief adornment of a lodging-house parlour.

The avoidable causes of wild-flower destruction have been given by an expert from whom I quote. They are in brief, "the needless deruralising of rural districts, smoke, trade collectors, and the excesses of tourists, children, and botanists."

Children, I agree with the Professor, whose words I borrow, are the least harmful on the guilty list. True, those who are taken out

into the country in large parties gather flowers by handfuls, to wither in their little fingers and die before home is reached; but children seldom pull out whole plants by the roots, nor do they rob the earth of her rarest and most precious stars. This is done, I grieve to say, by botanists and scientific collectors, some of whom—we hope not many—are the worst offenders. Mr. E. M. Holmes has told us how, when walking over Ballard Down, near Swanage, he saw in the turf, six plants of *Orchis ustulata*; on his return he saw six holes. It is not good to hear of botanists, during the last two years, having collected 100 whole plants of *Anemone Pulsatilla* from one locality, and 200 specimens of the rarer *Trifolium Bocconi* from the Lizard. Trade collectors are particularly destructive, because they do things on such a large scale, yet they are more easily forgiven, hard as it is to think calmly or charitably of the three men in Devonshire who, with a horse and trap, carted away ten sacks of Ferns each week for three weeks in succession.

FRANCES A. BARDSWELL.

(To be continued.)

#### KEW IN LILAC-TIME.

Go down to Kew in Lilac-time, in Lilac-time, in Lilac-time;

Go down to Kew in Lilac-time (It isn't far from London), And you shall wander hand in hand with Love in Summer's wonderland;

Go down to Kew in Lilac-time (It isn't far from London). The Cherry trees are seas of bloom and soft perfume, and sweet perfume;

The Cherry trees are seas of bloom (and oh, so near to London!)

And there they say when dawn is high, and all the world's a blaze of sky,

The cuckoo, though he's very shy, will sing a song for London.

The nightingale is rather rare, and yet they say you'll hear him there

At Kew, at Kew in Lilac-time (and oh, so near to London!)

The linnet and the throistle, too, and after dark the long halloo, And golden-eyed tu-whit, tu-whoo of owls that ogle London.

For Noah hardly knew a bird of any kind that isn't heard At Kew, at Kew in Lilac-time (and oh, so near to London);

And when the Rose begins to pout, and all the Chestnut spires are out,

You'll hear the rest without a doubt all chorussing for London.

ALFRED NOYES, in *Cape Times*.

## PRIZES FOR GARDENERS, JUNE.

### SMALL FLOWER GARDEN.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best essay upon "How to Lay Out a Flower Garden of not more than Half an acre in Extent."

A simple plan to show the proposed design, and also a list of the plants used, must be given.

The remarks must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than June 30. Both amateur and professional gardeners may

compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

June 5.—National Amateur Gardeners' Association Meeting and Exhibition, Winchester House, Old Broad Street. Mr. Rowberry will lecture on "Carnations."

June 6.—Royal Horticultural Society's Colonial Fruit Show (two days).

June 12.—Horticultural Club, 6 p.m.

June 12.—Royal Horticultural Society's Exhibition and Meeting.

June 19.—Oxford Commemoration Show.

June 20.—York Gala (three days). Royal Horticultural Society's Exhibition of Table Decorations.

June 26.—Royal Horticultural Society's Exhibition and Meeting. Isle of Wight Rose Show.

June 27.—Richmond (Surrey) and Southampton Flower Shows.

**British Primulas.**—I am now busy arranging my notes on British Primulas, and if any of your readers feel disposed to help me on with this important work, I shall feel indebted by their sending me flowers of any ancient varieties and any of the most advanced modern sorts. Will they say if they are willing to give me plants on my sending stamps for money out-of-pocket, or if necessary I would pay for them.—PETER BARR, V.M.H., *Kirn, N.B.*

**Buddleia variabilis magnifica.**—On page 278 for *Buddleia veitchiana magnifica* read *B. variabilis magnifica*.

**The Blairgowrie fruit industry.** Some idea of the extension of the fruit-growing industry in the neighbourhood of Blairgowrie, Perthshire, may be gathered from the increase in the production of Raspberries, which for some years has been at the rate of 200 tons yearly. In 1903 the tonnage sent by rail was about 1,000 tons net weight, and in 1905 it was 1,400 tons; while in 1906, provided that other things are normal, it is estimated that the Raspberries sent from Blairgowrie Station will reach the large total of 1,600 tons. The gross tonnage will be about 2,000 tons, and a rough calculation gives the average gross value of the crop at £40,000. About three-fourths of the crop goes to England, the best market there being Manchester, that city alone accounting for about 500 tons. Leeds, Liverpool, and London come next of the English cities in the order in which they appear. Scotland takes about 20 per cent. of the crop, and Ireland 5 per cent. An effort is being made to extend the London demand, by trying to secure a reduced rate of carriage. It has been proposed that the fruit should be sent there by fish train, and at the same rate of carriage—£3 per ton, instead of the present rate of £5 per ton. The problem of pickers is a troublesome one, but by new arrangements it is hoped to secure a larger supply of labour of this kind. New buildings for the accommodation of pickers are being erected, but recently hindrance was caused to the erection of some at Essendy by portions being blown down during a gale. Since writing the above we understand that the Caledonian Railway Company have declined to carry the fruit at the reduced rate proposed.

**Novelties at the Paris flower show.**—The delightful space and the well-arranged masses of colour in the Cours la Reine flower show in Paris make a far finer effect on entering than anything we have to look at in the annual Temple show. In point of interest and of variety, however, there is no doubt as to which is the most satisfying. There are one or two

novelties of value that should not be overlooked, notably among the Rhododendrons, for M. Gavron of Cherbourg exhibits the most splendid seedlings, crosses of Aucklandi with other species, and his bushes covered with enormous flesh pink blooms are as splendid as Pink Pearl or Kewense can be, while differing in colour. M. Moser, too, shows his curious and beautiful hybrid yellow Azaleodendron, which is the most singular blend of Azalea and Rhododendron, exactly midway between either parent. The Japanese Tree Pæonies are most surprisingly beautiful, and have apparently suffered less from the spring frosts than other varieties. Adsuma Nikishi (pure scarlet), Hakura Kuten (pure white), and Kagura Jishi (deep rose-crimson) are all semi-double varieties that put the finest old favourites to shame, and caused loud exclamations from the admiring crowd. M. Paillet of Chatenay had the luck to exhibit them. M. Lemoine showed his fine Lilacs, and one named Etoile de Mai is so distinctly bicolored as to be very distinct as well as pretty that note should be made of it. A very bright bedding Calceolaria called Triomphe du Nord was shown by M. Nonin, and promises to be by far the best bedding Calceolaria I have yet seen. It was amusing to see the little old-fashioned Cape Sida malvaeflora shown as quite a new plant, Malva capensis, but it is always a dainty little shrub. M. Poirier had some very fine new Geraniums, and one—Mme. G. Lebey—seemed quite a fresh shade of soft lavender-pink, extremely delicate and pretty. M. Maron did not exhibit his seedling Orchids, but M. Cappé showed his beautiful Lycaste Cappel, and M. Beranek showed Renanthera imeshootiana and Phalsenopsis rimestadtiana in splendid form, size, and brilliance. Pot Roses are never shown well in France, and Carnations were far below the mark, save and except those shown by Messrs. Cutbush. Vilmorin and Cayeux le Clerq both showed many good annuals, but the dingy colouring of the newest Nicotiana hybrids is most disappointing. That brilliant little Gamolepis Tagetes, as usual, is much used as an edging. I wonder why it is never grown in quantity in England? The fruit and vegetables shown were superb, as far as could be ascertained from a hasty glance.—E. H. WOODALL.

#### A note about Tufted Pansies.

—Much has been achieved in recent years in the development of these plants, the Tufted Pansy (*Viola*) of a decade since having little in common with the kinds that find favour to-day. The variety illustrated represents a distinct type of these popular flowers. Grey Friar is hardly done justice to in the illustration. It is rather a large flower, of good form, and is borne on long, erect foot-stalks. The plant is a profuse bloomer, and possesses, what should be regarded as an essential in the Tufted Pansies, a good habit. As may be seen, the blossoms are neatly rayed. The colour may be described as a shade of greyish blue. This was raised by Mr. William Sydenham of Tamworth, and was photographed from blossoms gathered in his gardens. We have experimented in various ways in setting up the Tufted Pansies for exhibition and home decoration, and thought, arranged as they are in this instance, they were more pleasing and less formal than the stiff-looking sprays one is accustomed to see at the shows. A saucer of silver sand that has been thoroughly moistened is all that is required. Pieces of Pansy foliage are then inserted here and there and the Tufted Pansy blossoms disposed between them. Mossed round the edge of the

saucers these arrangements make excellent decorations for the table. They have the appearance of growing plants.

## DAFFODIL NOTES.

### THREE IRISH-RAISED SEEDLING DAFFODILS.

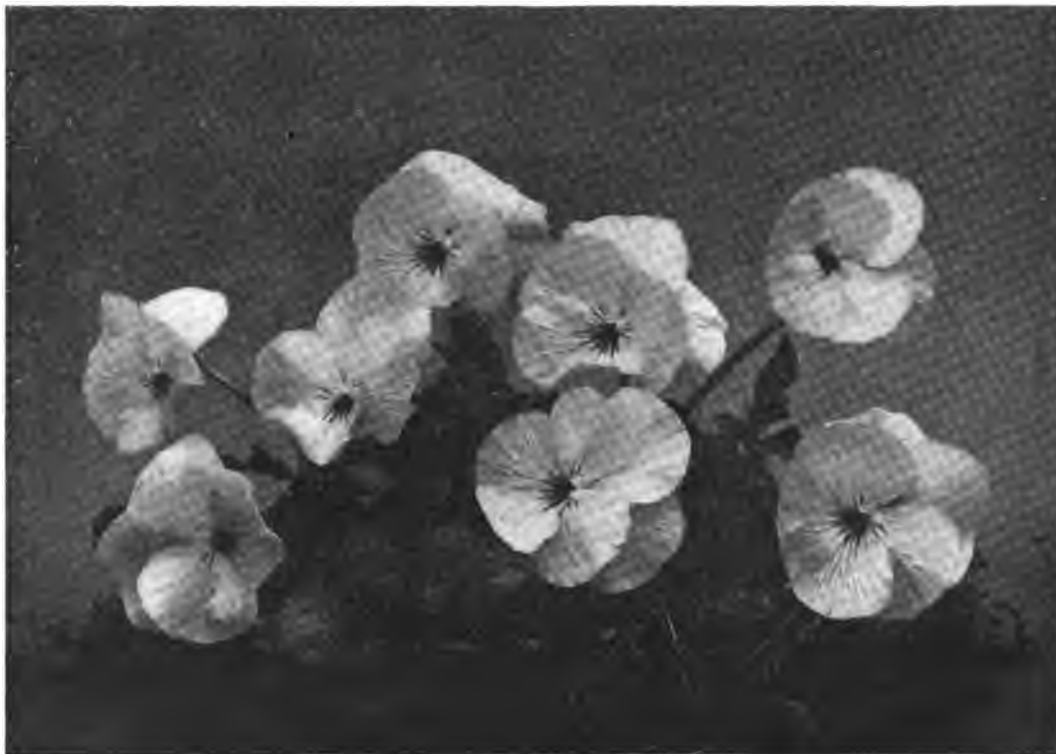
I HAVE had the pleasure this season of flowering the following three new seedling Daffodils. They were raised by Mr. W. B. Hartland of Cork, who was one of the first men to take the Daffodil in hand many years ago, and to whom this most lovely of all spring flowers owes much of its present popularity.

*Lorna Doone*.—Now that we have so many sorts so nearly alike that only an expert can tell the difference, this fine yellow Ajax comes as a most welcome addition, for it is quite distinct from any other trumpet variety I have yet seen. In colour it is a perfect self, the perianth and trumpet being exactly the same tone of par-

Mr. Hartland's efforts in the way of improving the Daffodil have been crowned with marked success, for he is now putting on the market a considerable number of very beautiful seedlings raised at his Ard Cairn grounds, many of which are great advances on older varieties. He is continuing his work of hybridising with undiminished energy and enthusiasm, making great numbers of crosses each season, his aim being perfection of form and stronger texture, also new breaks in colour. G. L. W.

### NOTES OF VARIETIES OF THE PHEASANT'S EYE (*NARCISSUS POETICUS*).

As I have been noting the names and some of the characteristics of the varieties of *N. poeticus* at different shows and in various gardens this spring, it may be of some interest to Daffodil growers for me to record the results. True Poeticus varieties must necessarily be rather alike, and so their descriptions in writing cannot vary much. At present the number of varieties before the public



ONE OF THE NEWER TUFTED PANSIES (*VIOLAS*), GREY FRIAR.

ticularly rich pure canary yellow; the flower is very substantial, which gives it the power of lasting well. In shape it is most distinct and beautiful, having broad stout perianth segments and long narrow absolutely straight trumpet, without any reflexing or serrating at the brim. It is a most vigorous plant, having strong massive foliage, and will prove most valuable for succession, as it is very late, lasting this season in good condition until the second week in May.

*Bernice* is a charming flower of the Parvi class, having an elegant star-shaped white perianth, and a small funnel-shaped cup of a wonderfully deep and vivid red, even deeper I think than Firebrand.

*Orestes*, though small in comparison with many, is a really first-class flower, certainly one of the most beautiful and refined I have seen of its class. Perianth lovely pale cream yellow, with beautifully rounded broad overlapping segments, very fine widely expanded saucer-shaped crown, beautifully crinkled, and of the most brilliant and fiery red orange.

is about forty. The list I give does not profess to be complete, nor does it include the new seedlings which are still in the hands of the raisers, and which have only appeared once or twice at exhibitions.

The Midland Show at Birmingham this year was remarkable for the number of Poeticus varieties that were to be seen there. I counted twenty-five.

*Acme*.—One of the very best of the red eye type. Very well balanced flower. Shown on Mr. Engleheart's stand at Birmingham in 1905.

*Almira*.—An uncertain doer. It does well in Holland, where it originated, but has likes and dislikes in British gardens. Ornatus type of cup. Perianth undulating. An artist's flower.

*Angustifolius*.—Cup small. Perianth segments almost shaped. Not often seen now.

*Ben Johnson*.—Poeticus-shaped perianth, with a cup tending to the Poetarum type. A small taking flower.

*Cassandra*.—Extremely fine. Many consider it the best new variety. A large overlapping

perianth, with an Ornatus cup. Personally I think the perianth rather large in proportion to the size of the cup. Tall grower.

*Chaucer*.—A very fine Poetarum. One of the earliest to bloom.

*Circe*.—A flower after the Poetarum type, but not so much red in the cup.

*Comus*.—A fine rich eye. Perianth after the Poeticus type, with petals of great substance. It is good for forcing.

*Dante*.—A flower like a big Ornatus.

*Epic*.—A fine large flower, with a perianth after the Poetarum type. Cup flat, deeply edged red. A very strong grower and a free flowerer.

*Fire Clay*.—One of Mr. Croesfield's seedlings. A much improved Poetarum.

*Glory*.—Cup small, with a narrow red edge. Perianth after the grandiflorus type.

*Grandiflorus*.—Large, floppy perianth.

*Herrick*.—Perianth after the shape of Poeticus. Cup all red.

*Horace*.—Very fine indeed. Large rounded perianth segments, with flat and all red cup.

*Homer*.—A magnificent Ornatus. Has received a certificate from the Royal Horticultural Society. In my opinion the best of the Ornatus type.

*Juliet*.—A nice flower, with a good overlapping perianth. It is like Homer, but smaller.

*Laura*.—An early flower after the Ornatus type.

*Laureate*.—An Ornatus type of flower. Very fine indeed.

*Lady Aline*.—Ornatus type. Small flower. A good deal of green in the cup.

*Marvel*.—Small flower. It has a distinct bladder-like spathe, which appears long before the flower.

*Masterpiece*.—A magnificent flower, with a grand all red eye of the Engleheartii shape, and an overlapping perianth of very great substance. New 1906.

*Miranda*

*Ornatus*.—The early-flowering Poeticus. Forces well.

*Poeticus*.—The old Pheasant Eye or "Sweet Nancy." Late-flowering perianth segments slightly reflexed.

*Poeticus* (double white).—Pure white, like a Gardenia. Very late.

*Poetarum*.—The cup is all orange red.

*Poem*.—A dainty little flower, like a small Ornatus, with a very narrow red edge to the green yellow cup.

*Præcox grandiflorus*.—May be described as an early-flowering Poeticus, with rather longer segments to the perianth.

*Ruby*.—A fine new seedling of Mr. Caves, somewhat like the grand new flower "Masterpiece."

*Rhymster*.—A flower very similar to Dante, with a broader red margin to the cup.

*Sidney*.

*Sir Walter Scott*.—A fine flower of the Poetarum type.

*Spenser*.—A flower which partakes of both the Ornatus and Poetarum characteristics. It seems midway between the two.

*The Bride*.—The cup is all red and small in proportion to the size of the perianth. Rather a taking flower.

*Verbanensis*.—A dwarf late-flowering Italian form of Poeticus.

*Virgil*.—A very good large flower with an all red cup and a fine overlapping perianth. A Virgil was the premier Poeticus at Birmingham this year. It is a strong and free grower.

*White Elephant*.—A large floppy flower after the grandiflorus type. J. JACOB.

#### NEW TRUMPET DAFFODILS.

AMONG new trumpet Daffodils shown this season were two remarkable ones raised by the Rev. G. P. Haydon of Westbere, Canterbury. One, named

*Pearl of Kent*, is a great beauty. Shown side by side with Peter Barr at the Tunbridge Wells show of the Kent and Sussex Daffodil Society, it

was somewhat similar, but distinctly superior to the latter, a notable fact being that the parentage of the two is, I think, identical. If one can imagine a flower of the tone of Mme. de Graaff, with a narrower and more elongated tube and a beautiful perianth of the grandis type, it would be something like this fine flower. Pearl of Kent worthily obtained an award when shown at Vincent Square, and also took the gold medal offered by the Kent and Sussex Daffodil Society for the best new seedling raised in either of these two counties. Another remarkable trumpet Daffodil shown at Tunbridge Wells by Mr. Haydon was

*Lord Medway*. It is something like Emperor, but far more perfect and refined in shape, with beautifully rounded perianth segments. Of Pearl of Kent there are as yet only three bulbs, and of Lord Medway only one, so it will be some time before these fine things can be distributed.

*Rye*.

F. H. CHAPMAN.

#### NARCISSUS EOSTER.

THE name of the flower to which an award of merit was given at the Midland Daffodil Society's show is Easter not Easter, as recorded in THE GARDEN. A. W.

## THE ROSE GARDEN.

### SOME GOOD NEW RAMBLER ROSES.

**B**Y the judicious mingling of the rambler and other decorative Roses, the modern Rose garden may be made an enchanting spot. It is not necessary that rambler Roses should be planted against pergolas, arches, or pillars.

They may be, and indeed are, often more beautiful when grown in the free style of our hedgerow Roses, so that where the garden proper is already full enough, the copse, meadow, wild garden, or any spot out of the reach of cattle, may be set apart for them. It must not be imagined, however, that these Roses will grow freely without good preparation of the soil. It is essential to dig the soil well, and as soon as the plants obtain a start they can generally hold their own. Among the many recent introductions, I know of none that will compare to the beautiful

*Lady Gay*.—It is true it has yet to establish its reputation outdoors, as the plants already seen in this country have been grown in pots; but I have no doubt that this variety will prove to be as good in the garden as it is grown under glass. In

*Mrs. F. W. Flight* we have a variety of rather common colour but of remarkable floriferousness, the corymbs of blossom being perhaps larger than those of any variety in cultivation. It is also a true multiflora, inasmuch as the blossoms are very persistent. Under glass trusses of bloom have remained good for fully three weeks. Another excellent feature of these multiflora Roses is that they will blossom right down to the ground, so that if required they make excellent bush plants. One of the most beautiful of the novelties not yet in commerce is

*Kathleen*.—This was exhibited at the Royal Horticultural Hall recently by Messrs. William Paul and Son, and was much admired. The blossoms are single, and of a rich crimson colour with a large white eye. Being produced in fine erect corymbs the effect is most telling, and in the distance they give one the impression of a beautiful Cineraria.

*Trier* is a most useful addition to the white double-flowering ramblers, and if it proves to be perpetual-flowering, as is reputed, the value will be much enhanced. The panicles of blossom are very large, some measuring 12 inches in depth, and the flowers last well. Another variety resembling the latter in some respects, yet much different in habit, is

*Griss an Tabern*.—This has extra large corymbs of snow-white blossoms, but the plant is not so

vigorous as Trier. It may be compared in growth to such as Longworth Rambler, Alistair Stella Gray, and Griss an Teplitz.

*Rubin* is somewhat older than those already mentioned, but it is not grown so much as it should be. The foliage, wood, and blossom are a ruby colour, and it is very free flowering. This is a most distinct and charming sort. Those who saw the fine plants of

*Wedding Bells* which Messrs. William Paul and Son exhibited lately were convinced that this variety will become popular. Its colour is glowing pink, with a dainty white suffusion. It is said to be a cross between Carmine Pillar and Crimson Rambler, but apparently it partakes largely of the staying powers of the latter.

*Waltham Bride* is one of the few Ramblers possessing a sweet fragrance. It is also very early flowering. It bears double white blossoms upon long, pendulous growths. It will associate well with other early-flowering brilliant-coloured sorts, such as Carmine Pillar and the Penzance Briars.

*Elisa Robichon*.—The opening buds somewhat resemble Perle d'Or, and they are abundantly produced. A pillar or old tree-stump is the best way of displaying this Rose, and it will sooner or later be in every collection.

*Philadelphia Rambler* has been rather prematurely praised. In colour it is grand, as one might expect from a cross between Crimson Rambler and Victor Hugo, but from a decorative point of view I fear it will disappoint. The trusses of bloom are very small and not very numerous. Whether it will improve with age remains to be seen.

*Ne Plus Ultra*.—The habit and floriferousness of this appear to be equal to Crimson Rambler, while the colour has a tendency to maroon. Being a cross between the Crimson Rambler and that very miserably-coloured Blanche Rebatch, it is rather surprising we have a Rose as good as Ne Plus Ultra undoubtedly is.

*Cora* is quite a new shade, and very lovely it is, producing huge bunches of flowers, peach pink, paling to blush. The blossoms are of exquisite Ranunculus-like form. RAMBLER.

#### A NEW YELLOW ROSE.

MR. E. H. WOODALL writes from Nice: "There is a new yellow Rose of splendid colouring, M. A. Choutet. I do not know if it is to be got in England, but get it. It looks as if it were a cross between climbing Perle de Lyon and some deep yellow Tea. The foliage is brown, the growth strong, and the large flowers are of rather good shape. I hope it may thrive in England."

## THE GREENHOUSE.

### A RARE LILY (L. SUTCHUENENSE).

**A** GROUP of this rare Chinese Lily is flowering in No. 4 Greenhouse at Kew, and, though resembling the Tiger Lily (*Lilium tigrinum*), it would appear to be earlier in flowering than that well-known species, which as a rule does not bloom out of doors till August, and even in the greenhouse would not be yet in flower. The specimens at Kew range in height from 3 feet to 6 feet, one of these last having as many as fifteen flowers. In general appearance it bears the greatest resemblance to that variety of *Lilium tigrinum* known as jucundum or Maximowiczii, which, like the new-comer, is without bulbils in the axils of the leaves. The leaves of *L. sutchuenense* are long, narrow, and very numerous, the stem slender, and the flowers smaller than those of the Tiger Lily, and in colour scarlet, with blackish spots, principally limited to the basal half of the segments. The flowers are on long, horizontally-disposed stalks, and when in the bud are clothed with a white woolly substance. Mr. E. H. Wilson, who sent



home this Lily in quantity when travelling for Messrs. Veitch, states in *Flora and Sylva* that it is common on the rocky grass-clad mountain slopes of the Chino-Tibetan border, between 7,000 feet and 9,000 feet. It is also frequently cultivated in these regions by the peasants on the tops of walls and the roofs of their houses, the bulbs being cooked and eaten. This fact is interesting, the only Lily bulbs hitherto known to be eaten by the Chinese being those of *L. tigrinum*.—H. P.

#### PELARGONIUM CLORINDA.

THIS is a distinct and very showy plant, and was much admired when shown recently by Messrs. Cannell and Son, Swanley, at a meeting of the Royal Horticultural Society. It has resulted from intercrossing a variety of the Cape Pelargonium and *Pelargonium quercifolium*. The foliage is strongly perfumed, and the flowers, which are produced in compact trusses, are rose-pink in colour. This new Pelargonium received an award of merit.

#### AZALEAS AFTER FLOWERING.

THESE plants are apt to be neglected after flowering, others coming into flower and needing room cause these to be relegated to some out-of-the-way place. This must not be done if plenty of healthy foliage and flowers are expected the following season. When flowering is over the seed-pods should be picked off carefully, cutting back any shoots that spoil the symmetry of the plants; this should be followed by a good syringing. Place the plants in a warm, moist temperature, shading from strong sun, and syringing twice a day when the weather is bright to promote growth and keep down insects. They will soon begin to make new growth, when if any require potting into larger pots it should be done then. Do not give a too large shift, and pot very firmly. The pots used should be quite dry and clean, and see that they are carefully drained with from 1 inch to 2 inches of potsherds, according to the size of pots.

The soil most suitable would be two parts peat, one part loam, and a quarter part of coarse sand. The pots should not be made too full, as it is detrimental to the plants only to get watered half-way down the pot; this can be avoided by leaving  $1\frac{1}{2}$  inches of space in a 10-inch or 12-inch pot. Keep the syringe going freely, with not too much water at the roots at first to those freshly potted. Plants not requiring potting should have the surface cleaned off and be top-dressed with the compost named.

G. WALLER.

Cock Crow Hill, Ditton Hill, Surbiton.

### THE FLOWER GARDEN.

#### THE FORGET-ME-NOTS.

NEARLY everyone is familiar with our native water Forget-me-not (*Myosotis palustris*), which is so abundant in marshy places and on the edges of streams in various parts of the country. In the bog garden it is a great favourite, as it is so easily grown, and makes such a charming display with its freely-produced and pretty blue flowers. Seeds ripen freely, but are somewhat difficult to collect in quantity, as the nutlets drop out of the calyx as soon as they are ripe. If seed is required, it is thus necessary to gather frequently a few at a time, and almost before they are ripe. Seeds of the water Forget-me-not should be sown as soon as possible after gathering, in moist soil, and in a shady place. The plant, however, may be increased freely by dividing the roots, as nearly every piece will grow if pricked into moist ground. Of the various other species which are used so largely and with such charming effect in spring



ONE OF THE NEWER SCENTED-LEAVES

PELARGONIUMS.

(Recently exhibited by Messrs. Cannell and Sons)

Swanley. Reduced.)

gardening, some are of perennial habit, while others are only biennials. There are about sixteen species found in different parts of Europe, but the greater majority have small and insignificant flowers. There are now in cultivation many beautiful strains of hybrids, which have been raised from the different species, and which possess compact habit, with free-flowering qualities. The best of the species grown in gardens include:

*M. alpestris* (*M. rupicola*).—One of our native plants, which is found on some of the Scotch mountains, and also in parts of northern England. It varies a good deal in habit and size, some of the smaller forms to which the name of *M.*

*rupicola* has been applied, barely reach the height of 2 inches, with flowers of a beautiful blue in April and May. Other forms are much taller and more branching, but no less beautiful. It is a true perennial, and may be kept for several years, while it is also raised easily from seeds, which come quite true. The best place for this choice plant is on the select part of the rock garden, in a half-shady position, in moist gritty soil. It is also a suitable plant for cultivation in pots, retaining its dwarf habit and beauty under this treatment.

*M. azorica* is a charming Forget-me-not of erect habit, with deep Gentian blue flowers. It is especially valuable for pots, as well as for the



shady border. It should be treated as a biennial, sowing the seed in August, and keeping the young plants in frames during the winter ready to plant out in April. It will then make a charming display during the following June and July.

*M. cespitosa Rehsteineri* is a dwarf-growing creeper, which is only found wild on the shores of the Lake of Geneva. It requires a moist position, where it forms a matted tuft of pale

bedding, for which its dwarf, compact habit and free-flowering qualities render it especially valuable. The origin of this plant is somewhat doubtful, although it is said to have been brought from Switzerland, but it has been in cultivation for a considerable time. The flowers are large, deep sky blue in colour, and in shady, moist corners are produced in abundance for a long period. In dry situations the plants often die off, but seed is freely produced, and self-sown seedlings come up in abundance around old plants. Seeds sown in pots during the summer months and the seedlings pricked out in some shady, moist spot make good flowering plants for the following spring, while the plants may be increased by pulling the tufts in pieces. Of this plant there are several improved varieties with larger flowers, including *Dyeræ*, *Blue Gem*, and *Perfection*, while there is also a white variety.

*M. sylvatica*.—This is also one of our native plants, while it is also found in woods and on the mountain chains of Europe and Northern Asia. Unlike *M. alpestris* it is a biennial, and seed should be sown in July or August. The seedlings should be pricked out in September, and will commence blooming in April. It is a very variable plant, and many elegant and compact varieties have been selected. One which goes by the name of *M. stricta* forms a distinct and elegant race, with column-like growth, covered the whole way up with flowers of various shades of blue. *Victoria* is one of the most distinct, forming handsome compact bushes, covered with flowers, having more than the normal number of petals of deep blue, varied with white and rose. *Star of Love* is a beautiful hybrid of *M. dissitiflora* × *sylvatica*, flowering quickly from seed, and of dwarf compact habit. Many other varieties are enumerated in catalogues.

Although generally used for bedding purposes, the *Forget-me-not* may be seen at their best naturalised in woodlands, wild gardens, and shady nooks. Under these conditions they seed freely and soon form large colonies, producing a natural and beautiful effect in early spring and summer. W. J. V. G.

#### A VALUABLE HARDY SPURGE.

(*EUPHORBIA EPITHYMOIDES*.) ALTHOUGH the *Euphorbia* family is a very large one, there are very few members of the hardy section that

are of any horticultural value. The subject of the illustration on the next page is an exception to the general rule, for it undoubtedly ranks as a first-class decorative plant. Commencing to flower early in April, it has continued to provide an attractive display until the middle of May, when the photograph was taken, and will last in good condition well into June. The plants are

of a bushy character, varying from 2 feet to 4 feet in diameter, with numerous leafy stems between 1 foot and 18 inches high. These are covered with soft hairs, and bear at the top the heads of yellow bracts some 4 inches in diameter. The upper leaves also are tinged with yellow, adding to the attractiveness of the plant. It is a robust grower, quickly making good-sized plants from cuttings, which root freely during the summer months if taken off and inserted in sandy soil and placed in heat for a time. Loamy soil suits it admirably, although it is not at all particular, flourishing in rather dry and sandy soil. Besides being an excellent plant for isolated beds, it is useful for the wild garden, where, when once established, it will take care of itself. It may also with advantage be used in the rock garden, where its compact habit of growth and mass of bright yellow would be much appreciated in the early spring months.

*E. epithymoides* comes from Central and Eastern Europe, where it is found growing wild on rough woody hills. It has been in cultivation for many years, but its merits have not been recognised to the extent that they deserve. Closely allied to this is *E. pilosa* var. *major*—if it is not, indeed, the same plant, as the differences in the cultivated plants are so small that they are barely discernible. A good waterside plant belonging to this genus is *E. palustris*, which grows about 5 feet high and bears large heads of yellow bracts. It is very effective on the margins of ponds. Besides these there are two other half-hardy species, *E. Characias* and *E. Wulfenii*, which are useful for woodland places. W. I.

## COLOURED PLATE.

PLATE 1300.

### ROSA SERICEA.

THE great beauty of the garden varieties of Rose which belong to the Tea, Hybrid Perpetual, and other allied groups has kept the purely wild types of *Rosa* somewhat in the background. After all, the beauty is in the individual flower rather than in the plant as a whole, although the perfect rosarian may deem it heresy to say so. For surpassing grace, combined with delightful colour, we have to go to that increasingly popular class of Roses which have either been raised by crossing a garden variety with a pure species or are but one remove more from a wild type. *Dorothy Perkins*, *Lady Gay*, *Una*, *Electra*, *Helene*, and *Crimson Rambler* are but half-a-dozen of this numerous and rapidly-increasing class.

Of the wild Roses there are few that equal *Rosa sericea* in simple grace and beauty; yet it is one of the least common in gardens. It was introduced from Gossam Than, a mountain in Northern Nepal, about ninety years ago, and was first described by Lindley in his "Monograph of Roses," published in 1820. Its flowers are distinct from those of other Roses in having, nearly always, but four petals, which are arranged in the form of a Maltese cross. They are of a creamy white, and the flower is about 2 inches across. One great charm of this Rose is its beautiful foliage: the leaflets are small and rich green, giving to the plant as a whole a soft, Fern-like aspect. There is a fine bush at Kew measuring 15 feet through and 9 feet high. It is almost the earliest Rose to flower in the open—usually during the last week of May—and its wide-spreading, arching branches, laden with blossom, make a lovely picture.

The species, however, has been brought into more prominence lately by reason of the



WINTARIA ON PERGOLA. (See page 289.)  
(From a photograph by Miss Willmott.)

green foliage, covered in early summer with flowers varying in colour from bright blue to pink. It is a good carpeting plant, and spreads rapidly, but needs an annual top-dressing of leaf-mould and sand.

*M. dissitiflora*.—This handsome free-flowering plant often begins to bloom early in February in favourable situations. It is much used for



ROSA SERICEA  
VAR. PTERACANTHA.



A VALUABLE HARDY SPUEGE (*EUPHORBIA EPITHYMOIDES*).

appearance of the wonderful new variety figured in this issue of *THE GARDEN*. *Rosa sericea* is a very variable species, especially in regard to the woolliness of its leaves and the armature of its stems. In some forms spines are entirely absent, and where they are present (as is usually the case) they are always broad at the base and flattened. In the ordinary form the base of the spine is about one-third of its length, but there is every gradation between these and those of var. *pteracantha*, where the base of the spine is three or four times as broad as it is long. The most remarkable feature, however, of this new variety is the fine blood-red colour of its enormous translucent spines. I first saw living specimens of this Rose in the famous fruticetum of M. Maurice de Vilmorin at Les Barres in France, where several fine bushes are growing, originally raised from seed sent from Yunnan by the Abbé Delavay. It was from this source, I believe, that the specimens exhibited by Messrs. W. Paul and Son at Westminster last year came. The species was then awarded a first-class certificate by the Royal Horticultural Society. We may hope in a few years to see this Rose a familiar inhabitant of our gardens.

The species has a wide distribution on the south side of the Himalaya, extending from Bhotan at least as far westward as Kumaon. But none of the forms found there appear to have spines as large as this Yunnanese variety, although one, collected by Sir George Watt in Manipur, has very broad-based spines.

Some of the forms have very woolly leaves, others are quite smooth. The fruits vary also from yellow to red. I was informed by M. de Vilmorin that the Yunnan forms have red fruits,

whilst those found more north, in Setchuen, have yellow ones. They are Pear-shaped and half an inch long.

W. J. BEAN.

## THE FRUIT GARDEN.

### APPLE WARNER'S KING.

**I** SEND you a photograph of an Apple tree (Warner's King) now in bloom. I attribute the wealth of bloom now produced to root pruning. Until some two years ago this tree made very strong growth, but failed to produce a crop of fruit, owing no doubt to the fact that it was planted near a walk where some years previously a drain had been

made. The soil had been excavated to a depth of 4 feet or 5 feet and 4 feet wide, this causing the roots to work freely and grow strongly. Two years ago we root-pruned this tree with the view of bringing it into a fruitful condition. The result is that this year the tree is full of blossom. Although this variety is one of the surest croppers in this locality, and an excellent Apple, it is well to watch young trees carefully so that they may be brought into a fruitful condition by root-pruning if gross growth is made. S. A. CHEFFINS.

*Catmos Gardens, Oakham.*

### YELLOW RASPBERRIES.

ALTHOUGH these are not in much demand for market in Britain, yet in private gardens they are always worth a place, as the better forms furnish a very acceptable addition to the dessert list, and of some the flavour is unsurpassed. An old American variety, Brinckle's Orange, when at its best in fine warm seasons, is exquisite as regards flavour, but it is rarely seen in this country, though I understand it is still a favourite for garden culture in the United States. An exceptional softness of the fruit renders it unfit for commercial purposes, hence it has gone out of cultivation for preserving or drying. In recent years we have had some excellent additions to the British yellow-fruited Raspberries, notable among which are Messrs. Bunyard's The Guinea, and Messrs. Veitch's Yellow Superlative, both from the red Superlative now so largely grown; but the Langley variety is said to be from a cross between Superlative and Yellow Antwerp. The fruits are large, clear yellow in colour, of good flavour, and are freely produced on strong canes. Queen of England is another of the Langley varieties obtained from Superlative crossed with *Rubus laciniatus*; it is not only interesting, but a really fine Raspberry, of a rich golden tint and capital flavour. Orange d'Automne is a good-flavoured late variety, and the sweet Yellow Antwerp and October Yellow (Yellow Four Seasons), though having small fruits, are not to be despised, for their flavour is rich when the fruits are well grown and ripened. Magnum Bonum seems to have quite disappeared, but it is not required, and Imperial Yellow or Victoria has little to recommend it except earliness. L. CASTLE.



AN ESPALIER TREE OF APPLE WARNER'S KING AT CATMOS HALL GARDENS, OAKHAM.



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**SOME OLD-FASHIONED FLOWERS**  
The double White Rocket was formerly very popular in old gardens, and most probably is so still. It is propagated from cuttings of the stems, but the best way is by division of the roots. After flowering cut down the old stems, and when the new growth starts away from the bottom divide the crowns and plant in good soil elsewhere. Water till established, and in autumn transplant to the flowering position.

*Dictamnus Fraxinella* (Burning Bush).—This is a very interesting plant, now throwing up flowering stems. It may be increased by division in early spring, but the process is a slow one. It will grow anywhere in good soil. Seeds sown in a box in spring under glass, though slow in germinating, will grow and make flowering plants in two or three years. There is a white variety which is of equal interest.

*Oak-leaved Geraniums*.—These are beautiful cottage window plants, and used to be very common in several varieties, all very fragrant. *Radula minor* and *major* are distinct varieties. I have had them planted out against the back wall of a cool plant house, which they completely covered, and from which sprays for mixing with flowers could be cut at any time. The variegated variety, *Lady Plymouth*, does well in the flower garden.—H.

*Bulbs in the Mixed Border*.—Bulbs such as Daffodils and Tulips, when planted in the border among ordinary herbaceous perennial flowering plants, are often an eyesore after the flowers are over and the leaves begin to droop and turn yellow. Daffodils are the worst offenders, because they have many more leaves than the Tulips and they take a longer time to disappear. A great deal, however, may be done to minimise the untidiness by continually cutting off dead ends as fast as they appear, and by removing the leaves as soon as they are dead. Their appearance may be further improved if they are twisted together; they then take up quite a small space. By sowing seeds of annuals around and among them they soon cease to be an eyesore, for as the Daffodil leaves grow uglier the annuals progress and come into bloom. I believe the most satisfactory method of dealing with them is to take up the bulbs when they have flowered, place them in shallow boxes or even on a bed of ashes in the open, covering the bulbs with ashes. They must be watered for some time—until, in fact, the leaves have fallen. When the latter begin to turn yellow the supply of water should be diminished. When the leaves have ripened off, the bulbs may be stored away and replanted as early in the autumn as possible.—T.

*Training Vines*.—How to train the shoots of a Vine, and to get as much strength as possible directed to the main leaves and bunches, are points in the growing of Grapes which often give much trouble to beginners. If Vines are neglected even for a week or so, when the shoots are growing freely, much harm is done. A check is given when lateral growths are removed wholesale. There should never be any need for such a slaughtering of branches. From the time that the young shoots start in spring until growth ceases, their progress must be regular, and to this end all branches, which are not required, ought to be removed while they are quite small. First, there is the branch on which the bunch is borne, and it is stopped, or pinched off, two or three joints beyond the bunch. Those leaves

which remain are the principal ones to take care of, and if they have space and light, they will greatly assist the swelling of the bunch of Grapes. Then there are the laterals, shown in the sketch at A A A A. The proper way is to allow the first leaf on them to develop and remain, and to pinch off all growth beyond that leaf, as shown at A on the top side of the branch in the sketch. The dotted lines show where all laterals grow, and they should be similarly treated.—AVON.

## THE BEGINNER'S FRUIT GARDEN.

*The Gooseberry*.—Everybody—even those who have no room for larger fruit trees—can grow Gooseberries. There are various ways of growing and training Gooseberries. The usual form is the low, open-centred bush. Gooseberries should be treated generously as to manures. They may be planted from 4 feet to 6 feet apart. The bushes are very often pruned too much. Keep the centre open by cutting out all shoots which cross over from side to side. Cut away all branches hanging near the ground, and thin the other shoots; but



HOW A VINE SHOOT SHOULD BE STOPPED.

leave in plenty of young wood, and only remove soft, unripe tips from leaders.

*The Black Currant*.—This may be pruned on somewhat similar lines to the Gooseberry. Occasionally an old bush may be cut back hard, when the bushes are failing to fruit and the fruits are too small, to induce a lot of young growth to break away. This hard pruning should be accompanied by liberal manuring.

*Red and White Currants*.—These are treated on different lines to the Black Currants. They bear well on short spurs, and so it is usual when pruning in autumn to cut back all shoots to short spurs 1 inch or so long, and then spur, if all goes well, will be heavily hung with fruit next season. Red and White Currants, as they grow more erect, do not require so much space as Gooseberries; 4 feet apart will generally be enough, and they may be planted in almost any position. They are often used to fill vacant spaces on the north wall or wooden fences. They may be trained, when young, in any desired form, but the bush form is adopted in most gardens. Summer pruning of both Gooseberries and Currants in a moderate way is always useful.

Part may be done by thinning the young wood in summer, and the remainder when the leaves fall.

The best Gooseberries are Industry, Whitesmith, London, Crown Bob, and Red Warrington. Good for preserving: Lancashire Lad, Antagonist, and Ringer. Of Black Currants choose Victoria, and Boskoop Giant. Red Currants: La Versailles, Raby Castle, and Red Dutch. White Currants: White Dutch and Transparent White.

*The Raspberry*.—The finest Raspberry is undoubtedly the Superlative. Other good sorts are Norwich Wonder, Carter's Prolific, and Baumforth's Seedling. Weakly, exhausted canes should not be used for planting. They should be planted in groups—four canes in a group—and trained to stout stakes 4 feet or so out of the ground, to which height the canes are pruned every winter, or at least before the buds start in spring. The best mode of training is to strain a couple of wires to stout stakes placed 10 feet apart, one wire to be near the top of the stake, and the other half-way down. To these wires the canes are tied. The rows should not be less than 5 feet apart, and may be planted from 18 inches to 2 feet apart in the rows. Raspberries do best in rather moist soil, which should be well broken up and manured; 2 inches or 3 inches of manure should be placed as a mulch by the side of the rows every spring to keep the moisture in the land and nourish the surface roots. Plant in autumn, or at least before Christmas if possible. Autumn-bearing Raspberries should be cut down to the ground every season after fruiting, as they bear fruit on the young wood of the current year. The White or Yellow Antwerp may be grown for dessert.

*The Loganberry* is a very useful fruit, and is being more cultivated. It should have more room than the Raspberry. If planted in rows, have the rows wider apart, and the wires 6 feet high. Otherwise the same treatment will do. It may also be trained against a fence.

*The Strawberry*.—Select a piece of ground in an open position, and dig it well in winter, working in manure very liberally. In March plant it with early Potatoes that can be cleared off not later than the first or second week in August. Give a top-dressing of short manure and soot, and fork it in. Tread the surface when dry, and plant good, strong, healthy runners which have been layered in small pots or on mounds of good soil placed for the purpose. The latter plan gives less trouble, and if the plants are lifted carefully with balls and planted with a trowel, the result will be equal to the pot system. The rows may be 2 feet apart, and the plants 1 foot from each other in the rows. After the first crop has been gathered, every alternate plant may be taken out. Strawberries root a good deal on the surface, but if the ground is deep and well broken up and manured, they will also send roots down deep in the ground, and these deep roots are very valuable in a dry season. Strawberries should have a firm soil, which should not be over-manured at the time of planting, as this often causes gross growth which fails to ripen, and the plants the next season are blind. These blind plants generally produce strong runners, and their luxuriance is sometimes a temptation to the beginner to take them for planting. This, of course, leads to failure, as only the best fertile plants should be propagated from. After planting firmly, give a good soaking of water, and draw a little dry earth up round the plants with a rake to keep the moisture in

the soil. Later on a top-dressing of short manure may be given. A layer of long litter should be placed between the rows just as the plants are showing bloom. This will conserve the moisture in the soil and keep the fruits clean. Before putting on the litter it is wise to give a dusting of lime and soot in mixture to get rid of slugs or snails.

*The Duration of Strawberry Beds* will, in some measure, depend on the character of the soil, but as a general rule three years is the limit permitted. When the crop has been gathered, remove all runners and give a top-dressing of manure. This should be done in the early autumn. Never propagate from either blind or exhausted plants. The best Strawberries are: Royal Sovereign, The Laxton, President, Sir Joseph Paxton, Latet of All, British Queen (plant in deep loam), Vicomtesse de Thury (for preserving).

### TOWN GARDENING.

*Seedling Carnations.*—The Carnations that were raised from seed sown a few months ago are growing quickly, and in a small garden where the question of space is always confronting one, it becomes a matter of difficulty to know where to plant out the seedling Carnations which, of course, will not flower until next year. To give up part of the border to them alone means that there will be no flowers there at all this year, and one cannot afford to have bare spaces in a small garden. I have overcome the difficulty, at any rate, for some time, by planting the seedling Carnations in the Rose bed. This was top-dressed with well-decayed manure in early spring, and the surface now consists of a light friable soil that seems to suit the seedling Carnations well. At present they have plenty of space and light, but, of course, as the Roses progress the Carnations will become more or less crowded and shaded. However, they will probably have plenty of room in which to grow for a month or two, and towards the end of July there will be some bare spaces in the mixed border when the annuals are over that will take the Carnations. There they may remain to flower, if it is convenient, or if one wishes to have them by themselves, an arrangement, which I think is preferable. They can be carefully transplanted to their final positions in September. They will not be much the worse for being removed if the work is done carefully. I do not recommend this method of cultivation if a border can be set apart for seedling Carnations, but in town gardens space is usually valuable, and one has to make the best of a little ground. In such a case, by adopting the method above described, seedling Carnations may be grown quite well. There is, perhaps, no gardening work more interesting than that of growing Carnations, and one gets a great many more flowers from seedlings than from plants raised from layers.

*Hoeing the Soil.*—The frequent use of the hoe in the garden is of the greatest assistance to plant growth, and especially so during hot weather. If the surface-soil is kept loose by means of the hoe, evaporation is prevented to some extent, and consequently the plants are not so liable to suffer from drought. A hard baked surface is inimical to the successful cultivation of plants. It is far better to keep the surface-soil loose and give less water than to water freely with the hose and neglect to use the hoe. Everyone who has a garden must have noticed how, after watering thoroughly with the hose in the evening, the ground quickly becomes hard and baked if the next day proves to be a hot one. The frequent use of the hoe prevents the necessity of watering so frequently and the surface from becoming hard.

*Cuttings to Take.*—Of cuttings of hardy plants to be taken now, those of Arabis and Aubrietia (Rock Cress) are among the most important.

The former will root quite easily if cuttings are taken off the old plants and dibbled in the soil of a shady border; even with no protection at all, they take root readily, and, once roots are formed, they quickly develop into good-sized plants. The double is more satisfactory than the single-flowered variety; the flowers last a good deal longer, and are handsomer, too. They are large and freely produced, and at a distance one might take a well-grown plant of the double Arabis for a Stock. To strike cuttings of the Aubrietia rather more care is necessary. The cuttings should be placed in sandy soil in boxes, which are best in a cold, shaded frame.

## EARLY DAYS OF THE DAFFODIL.

(Continued from page 256.)

**M**R. WILLIAM BACKHOUSE worked on raising new Daffodils till his death. A few years before his death he wrote a letter to the *Gardener's Chronicle* on his labours. No one followed it up, although Dr. Lindley was sympathetic. I was busy in my business, and had not made a great deal of progress in collecting ancient Daffodils. The matter passed out of my mind till one day a Yorkshire gardener casually remarked to me that Mr. W. P. Milner of Sheffield had a lot of Daffodils. So one fine May morning, on my way to Scotland, I broke my journey at Sheffield, and went to Mr. Milner's, had a look round with his gardener, and, not seeing any Daffodil flowers, was saying good-bye to the gardener, but he replied, "It is as much as my place is worth if you leave without Mr. Milner seeing you." "Then," I said, "take my card and I will wait." I got from Mr. Milner a most hearty welcome. He was delighted to meet one who cared for Daffodils, and said after breakfast we should have a look round, which we did. At last we arrived at some large Elm trees. He pointed to a few rows of starved Daffodils. Mr. Milner said, "My brother-in-law, Mr. William Backhouse, sent me some of all the new Daffodils he raised, and there I planted them." (This is another instance which shows the poor estimate in which the Daffodil was held.) "Would you care, Mr. Barr, to have some of these Daffodils?" "I would indeed, Mr. Milner," I said. He called to the gardener and told him to give me what I wanted of them. I said, "Not now, let them rest till July, then the gardener can lift them. Send me up all the small bulbs and plant the larger ones in your kitchen garden." After two years I again visited Mr. Milner. The Daffodils had responded to the better treatment, and some of them were 2 feet to 3 feet high, with grand flowers; I had never seen better before, and have not since. Mr. Milner was now proud of his brother-in-law's gifts, and as generous to visitors as ever.

Mr. Ingram, the gardener at Belvoir Castle, had been invited by Mr. W. P. Milner to see the Daffodils in their new position, and as is well known Mr. Ingram had an eye for the beautiful, picked out some varieties, and afterwards told me what a grand lot of Daffodils he had, naming some of the sorts. I said, "Where did you get them?" He replied, "From Mr. W. P. Milner." This fine collection, which luckily I had saved, became the present Mr. Milner's, and are a grand feature in his flower garden. Mr. F. W. Burbidge and I paid Mr. Milner a visit to see his Daffodils, and a great sight was presented to our eyes. From a slope in his garden he had made a little valley with a graceful winding path. On the left-hand slope he had planted his named varieties, and on the right his mixed Daffodils, all of which were in full flower. I very much doubt if at that time such another sight was to be met with in any other part of Britain, combining quality, quantity, and picturesque effect.

After my first visit to Mr. W. P. Milner, I wrote to Mr. Charles Backhouse for an invitation when his Daffodils were in flower the following year, and I spent a day or two among them. Here I found the Daffodils planted very deep, so that summer flowers might be planted over them. Those planted along the carriage drive, &c., were also very poor from the deep planting. I advised him to lift all bulbs in July, send me a portion of each, and not replant so deeply. This Mr. Charles Backhouse did. He retained the same number, and when I had classed and named the bulbs he presented to me I advised him not to mix up any of Leeds' with his father's varieties, which were much superior. In arranging Leeds' and Backhouse's varieties I was much struck with the difference between the two collections, and felt sure the two men were acquainted. I decided to follow up the idea I had adopted, so wrote to the late Mr. Tyreman, who was a personal friend of Mr. Leeds, and his answer convinced me I had hit the cause of the difference in the two seedling collections. This I followed up on my second visit to Mr. C. Backhouse, as both men had worked from the same material, and produced different results in quality. After dinner I asked Mr. Charles Backhouse whether the two gentlemen knew each other. Mr. C. Backhouse said, "I don't think they ever had any correspondence or visited each other." To make sure on this point he examined his father's correspondence, but nothing could be traced. This settled, I put a few questions to Mr. C. Backhouse. I asked him all about his father, till he said, "Why do you ask all these questions?" I said, "Because in the flowers I have read that your father was a very refined man, and all his pursuits were refined, and that he had a nervous temperament." "That is so." "Then," I said, "your father gave his nature to his flowers," and from that day I hold it as an article of faith that you may read the character of the man in the flowers he raises.

In 1883 Dr. Hogg and Dr. Foster, now Sir Michael Foster, called upon me to have my opinion as to the chance of success for a Daffodil conference. I said, "I am ready with the material. The public are seeing there is beauty in the despised flower. Get Mr. F. W. Burbidge to open the conference with a paper, and success is ensured. He is the only man who has made a careful study of the Daffodil literature." The attendance was not large, but the effect on lovers of flowers was great, and the flower at once became the flower of the day. It is true the ground had been prepared, and it only needed the match being put to the powder. This Mr. F. W. Burbidge and the influence of the Royal Horticultural Society effected. A new pleasure was launched and a new industry was created as if by magic. First in the flower garden, then in the hot-house, for the flowers to decorate the home. The show of 1885 was visited by the late Mr. Krelage. On his return to Holland, as the father of bulb growers announced to his fellow growers, the Daffodil would oust the Hyacinth, and it is doing it, both under glass and out of doors. So far his forecast has not been far out.

PETER BARR, V.M.H.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**S**PRING FLOWERING SHRUBS as they finish blooming require pruning. Weak flowering shoots on straggling bushes should be cut out to encourage strong young growths from the bottom for next year's flowering. Ribes, Forsythias, Kerrias, Berberis, and Spiræas are some of the things that are greatly benefited by this treatment. The seed-pods of Magnolias should be removed directly the flowers are over.

ANDROMEDAS AND LILACS should also have the faded flowers cut off; while removing the dead flowers, prune out also the weak shoots.

**ARNEBIA ECHINOIDEA** (the Prophet flower).—I would like to draw special attention to this member of the Boraginaceae family, and wish to recommend it as a distinct, hardy yellow-flowered perennial, and one that is easily grown on any well-drained border. It is not fastidious, for if planted in full sunshine it makes a very effective group, but it prefers partial shade, and is happier under these conditions; the growth is taller, and the flowers are also larger. It commences to flower about the middle of April, and goes on till midsummer, and if the old flower-stems are cut off it will flower again in the autumn. Directly it has done flowering is the best time to propagate this plant. It sometimes ripens seeds, but the crowns can be easily split up with pieces of the roots attached, or even cuttings very quickly form good plants if shaded and kept moist. Although this plant has been long introduced, it is still comparatively rare. I consider this plant so beautiful that I feel justified in emphasising its more extended culture.

**Box Edgings**.—As all danger from frosts is now past these may be clipped. The edges should be cut as neatly as possible, and be of equal height and breadth throughout; misshapen or neglected Box edgings give the garden an untidy appearance. We find it is only necessary to clip these in alternate years. The shears need to be very sharp. Proceed by cutting the back side first at a fairly sharp angle. A line may then be stretched tightly along the clipped side at the required height. This will be a guide when clipping the front side, as by cutting to the line it brings the edging to a tapering point, straight and even throughout, and is neater than a square-topped edging. The bottom also keeps furnished better. Weed destroyer may then be used on the walks by packing silt to form a ridge alongside the edging, allowing it to remain about a fortnight, or till rain has washed the weed destroyer in, then the silt may be spread over the surface of the walks, which will then remain tidy and free from weeds for two years. This method occurred to me three years ago; previous to that I had been venturesome with weed killers that were Box killers also, but since I adopted this plan the Box edgings have been free from injury.

G. D. DAVISON.

Westwick Gardens, Norwich.

## ORCHIDS.

**TEMPERATURES.**—The weather so far has been fortunately more settled, and the sun is now sufficiently strong to maintain the maximum temperature in each department during the day, and artificial heat is only needed at night. On bright days the fires should be shut off before breakfast, and started again about three or four o'clock in the afternoon, when the stages and floors of the houses should be damped and the ventilators closed in order to take full advantage of the sun-heat and avoid any excess of fire-heat. The bottom ventilators should be opened again in the evening; to what extent depends upon the outside conditions. The maximum or summer temperature should be given. The following table may be used as a guide: The warm house, by night 65° to 70°, by day 70° to 75°; Cattleya house, by night 60° to 65°, by day 60° to 70°; intermediate house, by night 58° to 60°, by day 60° to 65°; cool house, by night 50° to 55°, by day 55° to 60°. The day temperatures may rise 5° to 10° by sun-heat.

**CYMBIDIUM LOWIANUM**, *C. tracyanum*, *C. giganteum*, and *C. hookerianum* are among the plants which require repotting at the present time. *Cymbidiums* will stand for two or three years without repotting, providing they get manure after the first season. It is not advisable to repot large specimens unless the pseudobulbs show signs of deterioration, in which case the plants should either be potted on or broken

into pieces to increase the stock, according to requirements. The compost should consist of equal proportions of lumpy loam and peat, and about one-fourth dried cow manure broken into small pieces. Mix the whole freely with broken crock and coarse silver sand. Select a pot of a suitable size, and place a few inches of crock drainage at the bottom, over which place some of the roughest of the material, and then place the plant in such a position that the surface of the old ball is about 2 inches below the rim. Work the material around the sides moderately firm, and fill to within half-an-inch of the rim. For a few weeks very little water should be given the newly-potted plants, but the roots very soon enter the new material, and then the compost should be kept in a moist condition. Plants that have been grown in the same pot for several seasons should be given frequent applications of weak liquid cow manure from now onwards until the growth is complete. They require an intermediate temperature to grow in.

W. H. PAGE.

Chardwar Gardens, Bourton-on-the-Water, Glos.

## FRUIT GARDEN.

**OUTDOOR FIGS.**—Trees that are grown against walls or trellises require to be freely disbudded as soon as the shoots are long enough to handle. The shoots that are retained require to be pinched at the fourth or fifth leaf to encourage a second growth, as it is from the latter the succeeding year's crop will be obtained. The first growths will form fruit that will fail to ripen during the current season, and should be rubbed off and the second growth encouraged to make headway. These should be fastened to the wall by nailing or fastening them with twigs, allowing sufficient space between each young shoot so that all the leaves may be exposed to direct sunlight.

**RECENTLY-PLANTED FRUIT TREES.**—Young trees planted during the last season have now made some progress in growth, and will require attention in regard to selecting and securing the young shoots necessary for the formation of a well-balanced tree. No more growths should be laid in than are necessary to form the main branches. For such fruit trees as readily produce their fruit from spurs, the distance between each branch should not be less than 9 inches, and if the style of training adopted be that of the fan, extra young shoots will require to be laid in as soon as the points of the main branches exceed that distance from one another; the same principle must be carried out year after year till the whole space is filled.

**HORIZONTALLY-TRAINED TREES** are particularly well adapted for walls or espaliers of limited height by the side of garden walks. If the leaders have been pruned back to about 12 inches the formation of a new tier of branches and another leader will be all that is required for the upward extension of the trees. In selecting the buds for providing the new branches for wire espaliers choose 1 inch or 2 inches below the level of the wire should be preferred. If the upper branches become more vigorous than the lower ones, they should be checked by being stopped once or twice during the growing season. Well-placed shoots for forming fruit-spurs should be stopped at the third or fourth leaf, removing all others, a well-placed shoot, of course, being laid in to continue each branch.

**EARLY PEACH HOUSES.**—Every morning, while dry and cool, gather all fruits which will separate easily from the trees and place them in shallow boxes on paper shavings or wood-wool, with a sheet of clean paper next to them. Nets are sometimes fastened up under the trees to catch the dropping fruits, but I think Peaches are better gathered when under-ripe than at the falling stage. When gathered thus they may be kept for a considerable time in a fresh condition by placing them in a cool fruit room. Their maturity may be hastened by placing them over the pipes of a warm vinery with a sheet of glass

over the box in which they are placed. This latter greatly improves the flavour of Peaches ripening late in the season of a useless autumn.

**THE ORCHARD HOUSE.**—The trees should be carefully examined twice a day, affording water as soon as it is seen that the soil is getting dry. Diluted liquid manure from the farmyard applied weak and often will do much towards the production of fine fruits. A rim of zinc about 3 inches broad placed within the rim of the pot gives accommodation for a top-dressing of fresh loam mixed with bone-meal on pots that are already well filled with roots, and the pots may also be plunged in some material from which the water will escape freely.

THOMAS WILSON.

Glamis Castle Gardens, Glamis, N.B.

## KITCHEN GARDEN.

**WINTER ONIONS.**—The beds should be hoed frequently, and in showery weather should receive a top-dressing of some approved artificial manure. Nitrate of soda is an excellent manure for increasing the size of the bulbs, and one or two dressings may be given with advantage; but it must be used in a careful manner, or serious injury may overtake the crop, a dressing of not more than three-quarters of a pound to every 10 square yards being sufficient at one time. To facilitate the distribution of the nitrate mix two or three times the quantity of fine dry soil with the manure, and sow broadcast. When top-dressings are given it is good practice to hoe the ground directly afterwards. The thinnings from the main spring sowings are useful for salads, and where there is a demand for small Onions for this purpose, small sowings should be made every three weeks or so in a cool place.

**POTATOES.**—Attend to the earthing up of the second early varieties, well hoeing the ground a day or two beforehand to destroy the weeds. As soon as late Potatoes are well through, the ground should be carefully hoed once or twice before earthing up.

**SALADS.**—It is necessary always to maintain a constant supply of salading. Frequent sowings of Radishes and Mustard and Cress must be made on a cool border, as Radishes are apt to become soft and spongy in hot weather. Make also frequent and small sowings of both Cos and Cabbage Lettuce. Sow in a rich soil so that the growth may be free and of a succulent nature. Good results are obtained during the hot season if the seeds are sown where they can remain without transplanting, thinning to the proper distance afterwards. A sowing of Endive can be made now, though in many gardens Endive is not asked for when Lettuces are plentiful.

**PEAS AND SPINACH.**—Sowings of late summer varieties of Peas should be made. It will be found by experience which varieties are the most suitable, though as a rule *Ne Plus Ultra* is an excellent variety for this sowing. Sow thinly. Continue with sowings of Spinach between the rows. Attend to sticking and mulching previous sowings.

**BROAD BEANS.**—It is seldom that Broad Beans come to much if sown later than this date, being subject to the ravages of black fly. It is customary to top Beans in flower, and this practice has its advantages; it is a means of getting rid of most of the fly.

**BROCCOLI AND WINTER GREENS.**—Seeds of all kinds of winter Broccoli and greens should be sown by this time. Veitch's Model, I think, is the very best of all late Broccoli. We are now (the 21st ult.) cutting excellent heads, and shall continue to do so for some time. *Leamington*, *Chelsea Favourite*, and *Main Crop* are all late varieties to be recommended. Of sprouting Broccoli both the purple and white varieties should be grown. *Read's Improved Hearting Borecole* is one of the best of its class, and very hardy. *Asparagus Kale* is a very useful variety, especially where late planting is unavoidable. If the ground occupied by the remaining Broccoli

is wanted for other crop, lift carefully and place in a shady corner, and give a good watering. Clear away all old stumps as the heads are out.

J. JAQUES.

*Bryanston Gardens, Blandford.*

## THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, W.C.

### PRIMROSES AND POLYANTHUSES.

Mr. W. Watts sends from St. Asaph some magnificent Primroses and Polyanthuses. Among the former is a pale yellow form with giant flowers. Mr. Watts says he has measured some blooms more than 2½ inches across. Among other fine forms of these flowers there is the double crimson Primrose *Mme. Pompadour*, a flower that is justly prized by all who grow it. Mr. Watts also sends a few spikes of *Scilla nutans alba* (the white Wood Hyacinth), "which is growing in the grass here under the shade of a Cherry tree. It is a charming plant in the wild garden, as it comes with the Tulips and the last of the Narcissi."

### CALCEOLARIAS FROM MESSRS. WILLIAM BULL AND SONS.

We have received from Messrs. William Bull and Sons, King's Road, Chelsea, a selection of *Calceolaria* blooms representative of their strain of these valuable greenhouse flowers. The colours are rich and varied, some of the flowers being particularly handsome. None perhaps is finer than that which is rich crimson, with a broad canary yellow margin. Some of the yellow forms, too, are beautiful. Those with crimson dots and blotches upon a yellow ground, the crimson selfs, and those in which there is more crimson than yellow, are other varieties in a strain which is an excellent one.

## FRUIT HARVEST IN SOUTH AFRICA.

AMIDST the many untruths and half-truths—no less pernicious—that have been in the air of late with regard to South African affairs, it is pleasant to turn to solid fact. Convincing proof has been given, it is to be hoped, that in spite of the clash of contending policies, important industries are steadily making way in the South African Colonies that can, if successful, be nothing else than beneficial in their results.

We who, on this side of the great water-way, are watching the progress of Colonial fruit-growing, for example, with hope and pride, know that the consignment which lately left Cape Town destined for the exhibition tables in the hall of the Royal Horticultural Society comprised samples of fruit as fine as have been produced by any country under natural conditions. There is little reason to doubt that it has arrived in excellent form, though it is acknowledged by experts that the art of packing for transport by a long ocean voyage has not

even yet been brought to the highest limit of perfection.

It is not solely private enterprise that is striving to bring the agricultural products of South Africa thus prominently into view. The Cape Government is sparing no pains to aid the movement, and the Colonial Exhibition in London, which is to be continued for some time to come at the Crystal Palace, will give a more extended opportunity than usual of making the agricultural industries of South Africa known to the general public. The labour and cost of placing so perishable a commodity as fruit, grown more than 6,000 miles away, on the English and Continental markets is very heavy. Is it any wonder that it cannot be sold cheaply? But those who can afford the luxury may be sure that in encouraging this great industry they are materially helping to solve more than one difficult problem, and to advance the agrarian prosperity of one of Great Britain's greatest colonies. It is cheering, too, to remember that, owing to the exact balance of the seasons, South Africa enters into no undue competition with British fruit-growers, but rather urges them on, by healthy emulation, to fresh endeavours.

To watch the progress of work on one of the most important and advanced fruit farms in Cape Colony has been the pleasant lot of the writer during the past year, and English readers may be interested in some of the details which have fallen under notice.

It is well for us at home, perhaps, that Strawberries are among the most perishable of edible "goods." What would we give if our Strawberry season could be extended to months instead of weeks, as it is in this sunny land? With suitable ground and proper irrigation the sturdy crowns—not overburdened with leafage—produce enormous quantities of large, well-flavoured berries every day for six weeks without a break. Then comes an interval of a fortnight. The plants rest naturally after so heavy a crop, and the English visitor, supposing that it is over for the season, congratulates the expert on the capital success of his coloured gardener, a grey-headed old "boy" of some seventy summers. But it is only the first effort—a fresh crop has been ripening, and for another six weeks the same plants remain in full bearing, keeping up the standard of size and quality to the last. Such was the behaviour of a garden patch of Laxton's Noble occupying about one-sixteenth of an acre during the present season, and yet the plants, to an eye untrained to the marvellous effects of South African sunshine, looked stunted and shabby in early spring, giving no great promise. One learns by degrees to lay aside all preconceived notions and to await results. The question has often been discussed whether irrigation—a main factor in this district—would benefit English Strawberries, the verdict of the expert being that, under certain conditions, it would be immensely to the advantage of most garden and fruit crops at home to be able to irrigate. The opinion is given for what it is worth to enterprising folk who know what it is to suffer from drought even in our damp English climate.

The enormous yield of every kind of fruit, fostered by perpetual sunshine, passes imagination. Early thinning of Pears, Peaches, and Plums must of necessity be severe, or the trees would be irreparably injured by the mere weight of produce. Looking on at the process, one would suppose that the operator was deliberately sacrificing the crop, but quality is the goal—quantity in this country takes care of itself. January provided an object-lesson on this point. One plantation of Lemon Cling Peaches—a variety used chiefly for bottling—having been purposely passed over at thinning time, was so enormously over-cropped that the branches swept the ground, and many of the largest boughs were snapped off by the weight. This is not cited as a pattern of good cultivation—far from it, for it was a piteous sight to see fine trees so broken down, and the experiment is not likely to be repeated—nevertheless,

the fruit was a very fair-sized sample of a useful preserving Peach. Dessert Peaches are rigorously thinned, and only two or three successive varieties of the best type are grown for export. *Crimson Galande*, which has recently been pronounced to be the best late Peach for the English market, is here considered to be inferior to *Grosse Mignonne*, which is a larger and more taking fruit in every point as grown in these orchards. Taste differs as to Peaches. The white-fleshed, free-stone kinds are in greatest request, and the only ones, in fact, that are in demand for the export trade. An experience, however, that cannot be enjoyed out of South Africa, is that of diving into a basketful of *Constantia Beauty*—a real Cape, yellow-flesh, free-stone Peach of delicious flavour—and picking out the very best rosy-cheeked specimen, and then another, and another! Given one or two healthy appetites, and it is astonishing how soon they will disappear, for in South Africa fruit is food.

The dry summer climate of the Illex River Valley—a famous fruit-growing district—suits Pears to perfection. In early March picking is going on apace, and thousands of orchard trees being unloaded of their fine even-sized fruit form a sight few other countries would be able to offer. To speak of "ropes of Pears" would be no exaggeration. The original planting of Pears in the valley, however, was a doubtful experiment. It was thought that the climate would prove too hot and dry, but nothing venture, nothing have, and with judicious irrigation to feed the roots and keep them cool, the constant sunshine, except for a certain percentage of scorch-spots which cannot be avoided—does good rather than harm—Pears are likely to remain the main feature of the orchards for years to come. The full meaning of a melting Pear is realised when eating a South African Williams' or Beurré Hardy, one of the best of Pears, by the way, though not often brought into prominent notice. Cherries, so far, have baffled the efforts of growers hereabouts, where there is no summer rainfall, and the dry climate also affects Prunes, which are found to be not long-lived, and to succeed better in the moister valleys of Drakenstein and Stellenbosch. Apples do well and bear heavy crops of large fruit, but they do not run abreast of the Pears in quality. It may be taken as an axiom that nothing can beat a well-ripened English-grown Apple of certain well-known standard varieties, and if only a tenth part of the care and cultivation were bestowed upon Apple orchards in England that is given to plantations out here, what crops might bless the owners. For in face of all their undoubted advantages, English growers have fewer difficulties of some kinds to contend with than their South African brethren.

To take only one of such problems. Wherever fruit is grown in any of the South African colonies, the same outcry is raised of the tyranny of insect pests. We in England have no conception of the labour and expense entailed in keeping the multitudinous insect foes in check. As in a hot-house at home, so in a hot climate, with few destroying frosts, blight of all kinds increases at an abnormal rate, and it taxes every energy of the fruit farmer to prevent its going ahead to a ruinous degree. To stamp out any one of these pests seems to be altogether impossible, wage war as you may. Codlin moth is one of the most serious. An important and heartening discovery has lately been made that Codlin moth is not itself immune from a natural enemy, and experimental efforts are now being made to foster the parasite—presumably a species of ichneumon fly—of which probably thousands have hitherto been destroyed through sheer ignorance. Not only are Pears and Apples attacked, but Peaches and Plums have their peculiar plagues, and in some parts of the colony whole orchards have been devastated by the Peach fly. Fungoid growths and spot are not less troublesome and even more perplexing to circumvent. Thus rapid maturity



in the trees—for Peaches begin to bear in their fourth season, and Pears in the fifth—combined with profuse fertility, are counterbalanced by corresponding drawbacks. Does not a law of Nature decree that if a man will not work, neither shall he eat?

That the work entailed by fruit-farming in South Africa is strenuous, no one can deny. There is no idle season, and during the harvesting months the strain is excessive. On this property, from early morning, through the intense heat of midday, and until the sun goes down at late eventide behind a projecting shoulder of the mountain range, giving the signal to cease, the unvarying work of picking, first Apricots and Peaches, and later on Plums and Pears and Apples and Grapes in their due rotation, goes on day after day, from December to April, without a break. But after all, it is cheery work, as the intaking of a full harvest must always be. The coloured "boys" chatter like pies, and laugh and show their white teeth at their own mild jokes, while the white "bosses" look far from unhappy, especially when tea looms in the distance, about four o'clock on a thirsty afternoon, and home-folks appear on the scene, and all gather for a few restful moments under the shade of overhanging boughs to share the contents of the welcome tea-basket, the gangs at the same time having a brief respite from their labours. True, there is not much breathing-time during these five long months, when every hour is precious, but now that it is March the days already begin to draw in, the vintage is in full swing, cooler weather is at hand to brace up the relaxed muscles, and shorter hours and plenty of fun and frolic, of one kind or another, in the pleasant winter-time, will help to restore the balance and put the white staff into proper working trim for another busy harvest season. K S D.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

### FLOWER GARDEN.

**DIFFERENCE BETWEEN PANSIES AND VIOLAS (M. E. M. M.).**—The question you raise as to the difference between Pansies and Violas (Tufted Pansies) is one that is constantly recurring. All Pansies are Violas, and the so-called Violas are Tufted Pansies. We cannot better express what we feel regarding this matter than by quoting from THE GARDEN of January 16, 1892, where a proper definition is clearly laid down. Of Tufted Pansies (Violas) it reads as follows: "These are hybrids of Pansies and alpine Violets. The term 'Tufted' has been very properly used to distinguish plants of a spreading habit, like Pinks, Aubrietia, and alpine Violets, from plants with single erect stems, like, say, the Stock, Lupine, and Aster. Sometimes the two forms of habit occur in the same family; for instance, there are Violas that are tufted and Violas that are not—the German, French, and other Pansies in our gardens do not spread at the root as the Tufted Pansies do. Plants of this 'Tufted' habit are often a mass of delicate rootlets, even above the ground, so that they are easily increased. Hence when older Pansies die after flowering,

those crossed with the alpine species remain like true perennials, and are easily increased. The term 'Pansies' is a good one in all ways. Without an English name we shall always have confusion with the Latin name for the wild species. To all these belongs the old Latin name of the genus *Viola*. It is now agreed by botanists that all cross-bred garden plants—including Tufted Pansies, of course—should have popular English, not Latin, names. 'Bedding Violas' is a vulgar compound of bad English and bad Latin, whereas 'Tufted Pansies' is a good English name with a clear meaning."

**STRENBEGHIA LUTEA (Mrs. Downs).**—Yes, the plants will come up again. Probably your bulbs were not large enough to flower last year. Your best plan will be to leave them undisturbed until they have become large enough to flower. Imported bulbs are often small and take a year or two before they reach flowering size. This plant does best in a sandy loam, fully exposed to the sun; the bulbs then become thoroughly ripened during the summer. In rich ground the bulbs often make a lot of leaves and produce few flowers. Providing the position in which your bulbs are planted is sunny, and the soil is not too rich, we think you may confidently expect them to bloom this year, or, at any rate, next. Those you have in pots should be placed in full sun during the summer months to ripen. Remove the surface-soil and replace with fresh when signs of growth are apparent.

**WHITE FURZE (B. Paul).**—Though the flowers of the Furze or Gorse vary slightly in tint, we have never met with any other than rich yellow. Neither can we find any mention of an almost white form as referred to by you.

**PREPARING CARNATIONS FOR EXHIBITION (Winner).**—It is better to place the cards on varieties that are of bad form. When the flowers are about half opened arrange the petals on the card as they develop. Perfectly formed flowers do not require to be dressed on the plants.

**DOUBLE PRIMROSES (J. Cavetto).**—Primroses are very variable, and abnormal forms like those with green flowers, and others with foliaceous calyx, as well as semi-double ones, are occasionally found. The double ones are not often met with in a wild state, although well known in gardens. The specimen sent is not a very pronounced double, and would probably revert to its original single state in another season.

**CHRYSANTHEMUM LEAVES FAILING (Cheshire).**—The leaves of your Chrysanthemums were so shrivelled when they reached us that it was exceedingly difficult to determine what is the real cause of their failure. They give us the impression of having been injured by the frosts. It is possible, also, that you may have over-watered your plants. This is a frequent source of failure in the spring and early summer, especially with plants that have been recently repotted. Insect pests, &c., do not appear to be the source of the trouble; for this reason, therefore, the application of sulphide of potassium was quite unnecessary. When this insecticide is used at all, it should be applied in anticipation of the trouble, and before the early spring is a good period.

**MADONNA LILIES (H. A. S.).**—To be successful with this charming Lily the ground needs to be well drained. There has been much disease prevalent among this Lily of late years, and it is engendered by a soil too wet. Your best plan will be to lift your bulbs next September, sort them over, and plant the largest. Make some good holes and replace old soil with good loam, well enriched with decayed manure. Plant three bulbs in each hole, in a triangle, and cover with 8 inches of soil. The bulbs should be replanted immediately they are lifted. The small bulbs can be planted in a bed in some corner where soil is good, and afterwards they will furnish good bulbs for planting, as directed above. The disappearance of your bulbs seems to be owing to dampness. Next autumn have the beds and borders artificially drained.

### THE GREENHOUSE.

**VARIOUS PLANTS (Musk, Swaffham).**—*Aloe natalensis*.—We cannot find an *Aloe* bearing this specific name, but one, a native of Natal, would require a structure with a minimum temperature of 50° during the winter, when the roots should be kept almost dry. Loam and sand, with, if the loam is too heavy, a little leaf-mould, will suit it well. *Bauhinia Galpini* is a rambling or climbing shrub that succeeds best when trained to the roof of a fairly large structure, kept at an intermediate temperature. The flowers, 2 inches or more in diameter, are scarlet, and at their best very showy, but under cultivation they are not often freely borne. *Crossandra Greenstocki*.—*Crossandra undulatifolia*, which is, as far as we know,

the only species in cultivation, is a pretty soft-wooded stove plant (something like an *Aphelandra*) with a cone-like head of reddish salmon flowers. It will thrive in ordinary potting compost. *Dombeya*.—This is a fairly extensive genus, nearly all the members of which are natives of South Africa, and many of them are trees in stature. The best known is *Dombeya Mastersii*, which bears white sweet-scented blossoms, and can be successfully grown in a lofty stove.

**ASPIDISTRA LEAF (Aspidistra).**—The cause of the mark across the leaf of your *Aspidistra* is no doubt due to an injury received when the leaf was quite young. When small the leaves are very tender and easily bruised. Any damage done to them then may not appear serious at the time, but as the leaves grow the injured part develops also, and the mischief becomes fully apparent. We cannot say how the damage was done, but it looks as though the leaf had been pinched when quite small and bruised in some similar way. As other leaves are going in the same way it is quite likely that all were damaged at the same time.

**HYMENOCALLIS LEAF (A. Clark).**—The enclosed leaf of *Hymenocallis* has been badly attacked by thrips, which have caused a good deal of the discoloration referred to. If in close proximity to the hot-water pipes they are far more liable to these pests than if they are at a little distance therefrom, for an unduly dry atmosphere is very conducive to the increase of thrips. Vaporizing with the XL All Vaporiser will quickly destroy these troublesome insects. If *Amaryllis* are kept too wet so as to injuriously affect the roots, the bulbs are particularly liable to get red marks on them.

### FRUIT GARDEN.

**PEAR TREE BLOSSOM FALLING (Robert Dowler).**—The cause of your Pear tree prematurely shedding its blossom may be attributed to frost. The anthers of the flowers are blackened, and suggest this. On the other hand, the texture of the leaf (being thin and light) would lead us to the conclusion that the tree during its season of growth has been unduly overcrowded with shoots and foliage, thus preventing the ripening of the wood and flower-buds. Therefore, if this supposition be correct, more attention must be given to disbudding most of the weakly growths from the branches now and to summer pruning, by cutting back the foreright shoots—that is, those growing straight out from the branches—to 5 inches within their base the last week in July, thus exposing the remaining parts of the shoots (the fruit-producing parts) to the essential influences mentioned above. Another fruitful cause of fruit tree blossom falling is dryness at the root of the tree, especially in trees growing against walls. We would advise you to give it a thorough watering with weak manure water at intervals of three weeks during the summer and in the winter.

**PEAR LEAVES DISEASED (R. W. W.).**—The weather conditions during this spring, alternating as they have done between winter, spring, and summer, in a short time, combined with your cold clay soil, have, no doubt, brought about conditions favourable to the growth of the fungus which has attacked your tree. The best thing you can do is to pick off the leaves which are badly affected and burn them, as the mycelium of the fungus spreads rapidly, and is quickly communicated to other healthy foliage near. It is most difficult to eradicate. The best remedy to apply is to strip off the worst of the leaves and burn them, and to spray the tree with a sulphur emulsion prepared as follows, two or three times a week, in order to kill the spores as they escape from the leaves when ripe: 2lb. of flowers of sulphur, 2lb. of soft soap, mix together in 2 gallons of hot water until both are well incorporated. To 3 gallons of clear water add 1 quart of this mixture and apply with the syringe or garden engine to the tree. As a precaution against future attacks the tree should be dressed in winter (early in February) with the Bordeaux Mixture in order to kill any living spores which may be left.

## MISCELLANEOUS.

**TULIP MOULD (W. H. G.).**—Your Tulips are suffering from this disease. You had better take up all diseased plants and burn them at once. Also well lime the soil and let it remain fallow for this year.

**TRIN INVESTED (Spade).**—The pieces of bark that you sent do not show any signs of having been infested by an insect, the nest was probably the cocoon which had contained the chrysalis of some small moth, but it was quite empty. I could not find any insects in the paper with the pieces of bark, and the nest or cocoon; they must have escaped en route. If you will kindly send some more I will gladly tell you what they are.—G. S. S.

**STABLE MANURE (Glossy).**—The proper way to treat horse manure is to collect it under cover if possible, if not, then have some rough mats thrown over the heap to protect from heavy rains. As it is collected shake out the long straw and dry it for re-use or for providing cover. Turn the heap at least once a week to prevent fermentation or overheating, and water moderately in turning to help promote decay. When needed for soil dressing it will be sweet, and will become soluble rapidly for crops.

**THUNIA LEAVES DAMAGED (E. L. E.).**—The brown patches on the leaves of the Thunias are caused by the plants becoming dry at the root. As you have flowered them well you have, no doubt, grown them as they should be, exposed to much sunlight; but under those conditions, when they are approaching the flowering stage, they must never become dry at the root. The spots on the stems may be caused by syringing late in the day, combined with a low damp temperature during the night. But you have every reason to be proud of your successes in flowering them so well. With such quick-growing plants as Thunias it is very difficult to avoid such injuries. Many only produce fine foliage and no flowers, so in growing them to flower well there is always a certain element of risk to foliage.

**NAMES OF PLANTS.—S. J. Stone.**—1, *Acer platanoides*; 2, *Lonicera Xylosteum*; 3, *Myrtella diphylia*, thrives best in a fairly moist soil of a peaty nature. It belongs to the natural order Saxifragaceae. —*Peach*.—1, *Cydonia Maulei*; 2, *Saxifraga hypnoides*; 3 (missing); 4, *Abies nobilis* var. *glauca*. —*J. B. R.*—Double Jew's Mallow (*Kerria japonica* fl. pl.). —*A. La T.*—*Cytisus capitatus*. —*C. E. F.*—1, *Olearia myrsinoides*; 2, *Griselinia lucida*; 3, *Staphylea colchica*; 4, *Staphylea pinnata*; 5, *Viburnum Lantana*, the stock upon which *V. macrocephalum* is grafted. —*M. Barney*.—*Cestrum elegans* requires cool greenhouse treatment, but would stand being outside in summer in the Isle of Wight. Leaves dropping off is probably due to being in too small a pot, or from getting dry. —*Curious*.—1, *Ajuga reptans*; 2, *Saxifraga oordifolia*; 3, *Phlox subulata* var.; 4, *Saxifraga Alizon*; 5, *Saxifraga trifurcata*; 6, *Saxifraga rotundifolia*; 7, *Sedum roseum*; 8, *Saxifraga Wallaei*; 9, *Sedum*. —*A. L. Ford*.—*Olearia stellata*. —*C. T.*—The names of the plants are *Eucalyptus Gunnii*, *Genista hispanica*, *Olearia nitida*, and *Cytisus piceus*. —*J. B.*—*Veronica serpyllifolia* var. *humifusa*. —*A. K.*—1, *Ranunculus acris* fl. pl.; 2, *Ranunculus acris* fl. pl.; 3, *Ranunculus acris* fl. pl. —*W. Booth*.—1, *Chelanthus mutabilis*; 2, *Veronica buxifolia*. —*Mabel Thomas*.—1, *Ribes aureum*; 2, *Coronilla Emerus*. —*Mrs. Scott*.—Crushed beyond recognition, but probably a form of *Iris pumila*. —*H. Henderson*.—1, *Lepidium Draba*; 2, *Pennis P. dus*. —*Mrs. E. Ellis*.—*Primula floribunda*, not hardy. —*J. A.*—Without flowers it is impossible to say positively, but the two specimens sent appear to be both strong forms of *Asparagus plumosus*, which is naturally a variable species. These tall kinds of *Asparagus* have been imported, but they are very seldom grown in this country, being too tall and straggling for general purposes.

## QUESTION.

**DESTROYING WATER-RATS.**—Will you kindly tell me if there is any way of frightening away or destroying water-rats? They have been a regular pest in my bog garden, undermining all the plants by water-ditch, and for the last six weeks eating all my Irises, especially *I. aurea*, *ochroleuca*, *Monnieri*, and *Monspur*. I have wired all along the water-ditch, but they come round it. I have about a dozen traps set amongst the Irises, but they seem too cunning to go into them. If I knew any particular food they were fond of I would poison them, but they will not touch meat, meal, or bread.—C. M. WOLSELEY.

## OBITUARY.

## T. BEAMES.

We regret to have to record the death of Mr. T. Beames, photographer to the Cardiff Gardeners' Association. Eighteen years ago, when it became known that the old Glamorgan Horticultural Society had ceased to exist, Mr. Beames and a few others worked hard in order to start a show for cottagers, and they were so successful that they eventually decided to depart from their original idea and start a show more on the lines of the defunct society, and this was the foundation of the present Cardiff and County Horticultural Society. The funeral was very largely attended, and many beautiful floral tributes were sent, including one from the association. The latter was represented by Messrs. T. Clarke, T. Malpass, J. Newton, and J. Julian.

\* The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 6d.

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" 12 choicest, Smith & Douglas vars., including recent sorts, 6/0; 25 for 10/6 ..		
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" Chrysanth., Early Jap, 13 Aug. flowering vars. ..	3/0	—
" 13 Aug. and Sept. ..	2/3	14/0
" 13 Sept. and Oct. ..	2/3	14/0
" ..	2/0	12/0
Daunty's variegata, edging grass ..		
Dahlias, Cactus of 1905, 6 vars., 4/6; 13 vars., 8/6 ..		
" of 1904, 6 ..	2/3	13
" best older vars., 6 vars., 1/6; 13 vars., 2/6 ..		
" Pompon, 6 best vars., 1/6; 13 ..	2/6	
Echeveria sec. glauca, white rosettes ..	1/0	10
Euonymus variegata, model edging plant ..	2/0	—
Francia ramosa, for centre of beds ..	3/0	20/0
Fuchsias, 13 best bedding vars., single or double ..	1/6	16/0
Geraniums, crimson, white, scarlet, pink, or salmon, from 3in. pots, single, or semi-double ..	3/0	20/0
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Heliotropes, Miss Nightingale and others ..	2/0	12/0
Iresines, Herberti or Lindenli ..	1/6	8/6
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Nepeta variegata, for carpet bedding ..	4d. each	3/0
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Violas, 12 Finest, for beds or exhibition ..	1/9	—
" 50 ..		
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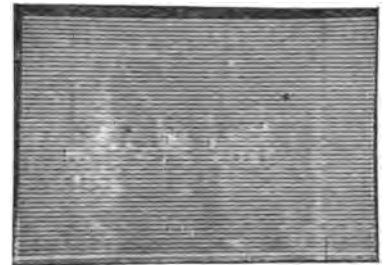
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# THE TEMPLE SHOW.

A LOVELY summer day greeted the great show of the Royal Horticultural Society. On Tuesday the tents were crowded and very hot, but no finer display of flowers has been seen in the Temple Gardens. There was one pleasant incident this year—a presentation to Mr. S. T. Wright, superintendent of the Wisley Gardens, from the exhibitors at this annual show. The presentation was made by Mr. Arthur Sutton, who mentioned how greatly the pleasure of exhibiting at such a show as that in the Temple Gardens was intensified when the exhibitors were helped so tactfully by Mr. Wright. Mr. Sutton mentioned that the presentation had the hearty approval of the council, and also alluded to the fact that it was through the forethought of Mr. W. and Mr. W. Penrose Atkinson that so agreeable an incident had occurred.

Mr. Wright was presented with a gold watch and chain and a cheque for £89. Mr. Wright, in response, spoke of his surprise at receiving so pleasant a testimony of the exhibitors' regard, and of his appreciation of their kindness.

## CARNATIONS.

Mr. C. Engemann, Saffron Walden, Essex, had a charming group of Carnations. They were set up in bold vases in such sorts as The Cardinal, Mrs. T. W. Lawson, Fiancée, and The Belle.

A very pretty group came from Messrs. George Boyes and Co., Leicester. The varieties were very varied, and included new and popular sorts.

Mr. A. E. Dutton, Iver, Bucks, made an exhibit that did him much credit. Not only were the plants well grown but the colours were pleasingly diverse and bright withal. Enchantress, Fair Maid, Flamingo (good), Harry Fenn, Floriana, and Harlowarden were just a few of the good things.

A group of Carnations (Malmaison) was set up at one end of the centre of the second tent. They were very large and well grown. They came from the Hon. Walter Rothschild, Tring.

Messrs. H. Cannell and Sons, Swanley, had a few plants of Carnations Duchess of Marlborough in their group of a miscellaneous character.

Messrs. T. S. Ware, Limited (1902), Faltham, made an interesting exhibit of new and choice varieties. Mrs. Lawson, Cecilia, Mrs. M. A. Patton, Leander, and Enchantress were good.

A large group was set up by Mr. Martin R. Smith, Hayes Common. Ashantee, Mrs. Will Fane, Sir Gallahad (a good white), Lady Hermione, Lady Linlithgow, and Floradora were all very beautiful.

Messrs. William Outbush and Sons had a nice lot of Carnations in small groups in their display in the big tent, adding much to its picturesque quality.

Mr. S. Mortimer, Rowledge, Farnham, had some good Carnations. Enchantress, White Mrs. T. W. Lawson, Princess May, and Mrs. T. W. Lawson were conspicuous.

Carnation Mrs. C. Forbes, a good yellow, was in the stand of Messrs. Jarman and Co., Chard, Somerset.

Messrs. Hugh Low and Co., Bush Hill Park, N., made a grand display of Malmaison Carnations. This firm also had a display of other good types of the flower. From the same firm came Gerbera Jamesoni, Dimorphotheca Ecklonia, Erica ventricosa magnifica, and the quaint Metrosideros floribunda.

Messrs. Bell and Sheldon, Castel Nurseries, Guernsey, showed Carnations very satisfactorily. Governor Roosevelt, White Lawson, Harry Fenn, and others were good.

Mr. H. Burnett, Guernsey, had a really beautiful display, bold vases well filled with fine flowers of such sorts as Enchantress, Lady Bountiful (a seedling bizarre), and The President.

Messrs. B. S. Williams and Son, Upper Holloway, had grand blooms of Leander, Mrs. T. W. Lawson, Enchantress, and other standard sorts in their group.

From Mr. H. Elliot, Hassocks, Sussex, came Carnations in variety. Ethel Crocker, Florence Wooler, Snow, and Elliot's Queen were conspicuous.

New Carnation Britannia, which looks a really good thing, was sent by Mr. A. Hemmley, Lewisham. This is a promising Carnation.

Carnations, specimen plants and otherwise, made a handsome group. This came from William James, Esq., Chichester (gardener, Mr. W. H. Smith). Princess of Wales, Cecilia, a new seedling white Carnation named Mrs. W. James, were very fine.

Carnations were also very finely shown by Messrs. Charles Turner with their group of Roses.

## ROSES.

From Messrs. Thomas S. Ware (1902), Limited, Feltham, Middlesex, came a group of rambler and other Roses. An archway of Rubin was in the foreground, and the group was finished off in front with small plants of various types.

The south-east corner of the large tent was occupied by a group from Messrs. Paul and Son, Chessington. Dainty standard, half-standard, and dwarf Roses were charmingly arranged, and with rambler Roses made a most fascinating display. Single Rose Trier (seedling Tea), Argosy (Hybrid Tea), Richmond, a glorious colour, and many other choice Roses made a most welcome feature in this large display.

Unsurpassed was the display of Roses made by Messrs. W. Paul and Son, Waltham Cross, Herts. Hiawatha, the charming carmine single, was lovely, as was the new pink-coloured single Kathleen. The rambler Roses were superb, many sorts being covered with flower clusters. Other types of Roses were superbly shown, and their disposition was delightful.

Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, exhibited a group of Roses in great variety that was much admired. Many beautiful sorts of climbing and other Roses were included in their display.

Mr. George Mount, Canterbury, excelled. All types of the Rose were beautifully exemplified in this grand display. Frau Karl Druschki, Mrs. John Laing, Ulrich Brunner, Mrs. R. G. S. Crawford, Catherine Mermet, and numerous boxes of superb exhibition Roses made one of the best out Rose displays in the show.

Messrs. H. Cannell and Sons backed their large group with rambler Dorothy Perkins.

From Messrs. Frank Cant and Co., Colchester, came a charming group, included in which was their charming new climbing Rose Minnehaha and a large number of beautiful exhibition Roses. Souv. de Pierre Notting (Tea) was good.

Roses from Messrs. Hobbies, Limited, filled one end of the long tent. Hiawatha was the finest carmine single Rose; Captain Hayward is still a good thing, as was evidenced here; Dorothy Perkins and other ramblers were well shown, and quite an interesting lot of other Roses.

The south-western corner of the large tent contained a grand exhibit from Messrs. W. Outbush and Son, Highgate and Barnet. The new Rambler Rose Mrs. F. W. Flight was freely displayed in

elegant festoons. This, with a nice lot of Crimson Rambler and Dorothy Perkins, together with Malmaison Carnations, made a noteworthy exhibit.

Roses and Carnations from Mr. Charles Turner, Slough, were represented by a large group of plants, freely flowered. The rambler Roses, especially the dwarf multiflora sorts, were finely represented, and made a very showy display.

## SWEET PEAS.

Mr. H. J. Jones, Lewisham, exhibited a very showy group of Sweet Peas in numerous varieties. The flowers were prettily arranged with grasses and other foliage. Gladys Unwin and Evelyn Byatt were especially good.

Messrs. Dobbie and Co., Rothesay, showed Sweet Peas in variety. Henry Eckford, Charles Foster (purple), Queen Alexandra, Mrs. Philbrick (light blue), Albatross (white), John Ingman (rose), and Ceres (primrose) were included. They were shown with their own foliage, and made a pretty display.

The group of Sweet Peas shown by Messrs. Watkins and Simpson, Tavistock Street, Covent Garden, was very effective, the colours of the flowers were good and distinct. Scarlet Gem, Miss Willmott, Flora Norton, Prima Donna, Nora Unwin, Evelyn Byatt, and Frank Dobby were excellent.

Messrs. R. H. Bath, Limited, Wisbech, showed some excellent Sweet Peas in bright, distinct colours. Hon. Mrs. Kenyon, King Edward VII., Flora Norton, and Lovely were very good.

Messrs. Stark and Son, Great Ryburgh, Norfolk, exhibited Sweet Peas Enchantress (pink), and Delicate (blush), the former a beautiful flower. Variegated Nasturtiums were also shown by them.

The Sweet Peas from Mr. Henry Eckford, Wem, Salop, made a charming display. The colours of the flowers were pure and good. Henry Eckford, of pale apricot colouring, was most noticeable, while Scarlet Gem was undoubtedly the best of the scarlets. Evelyn Byatt, Helen Lewis, Emily Eckford, Dora Broomfield, King Edward VII., and others were shown at their best.

Mr. C. W. Broomfield, Winchester, exhibited Sweet Peas in variety arranged with their own foliage. King Edward VII., Jessie Outhbertson, George Herbert, Dorothy Eckford, Miss Willmott, Aurora, and Cyril Broomfield were well shown.

Messrs. R. H. Bath, Limited, Wisbech, showed a very good lot of Sweet Peas, such as Hon. Mrs. Kenyon, King Edward VII., Navy Blue, Lovely, and Cocoon, the flowers being large and of good colour.

The Sweet Peas from Mr. Robert Sydenham, Tenby Street, Birmingham, made a beautiful display. Large bunches of each variety were shown, the flowers being tastefully arranged. All the best varieties were exhibited, as New Countess of Radnor, Salopian, Countess Spencer, Gorgeous, Captain of the Blues, and Janet Scott.

## ORCHIDS.

Messrs. Sander and Sons, St. Albans, exhibited a magnificent display of Orchids, a group that contained many remarkably fine individual plants, and was full of rare and choice Orchids. In the centre there was a splendid plant of Cattleya Skinneri bearing some 150 blooms; Odontoglossums in great variety were interspersed throughout, and Cattleyas and Laelia-Cattleyas were shown in quantity. The new Orchids comprised Laelia-Cattleya Golden Glory, with canary yellow sepals and petals and pale crimson lip; Dendrobium fletcherianum, with bluish white sepals and petals and rich purple lip; Cypripedium Imperiale (Stonei x rothschildianum)



and *Zygopetalum* Sir Trevor. The finest of the *Odontoglossums* was *O. crispum* var. *Leonard Perfect*, a large flower, with frimbriated edges and white ground colour. There is a large light red blotch on each petal and sepal, leaving a well-defined white margin. *Brasso-Cattleya* Mrs. Leeman var. *frimbriata*, *Cattleya* Mrs. Myra Peeters, *Lælio-Cattleya canhamiana* Rex, and many others were worthy of note. The Veitchian Cup for the best exhibit in the show was awarded to this display.

The group of Orchids from Messrs. Charlesworth and Co., Heaton, Bradford, contained many beautiful Orchids, and they were most effectively arranged. The lovely white racemes of *Phalenopsis rimsteadiana* and the red of *Renanthera imschottiana* made a striking display in the centre, and grouped on either side were magnificent *Cattleyas*, *Odontoglossums*, *Oncidium*, and other Orchids, none but the finest sorts being represented. On either side of the white *Phalenopsis* in the centre were masses of the orange-yellow *Lælio-Cattleya* G. S. Ball. Among the *Odontoglossums* we noticed *O. lambeauium*, *O. ardensissimum* The Countess, *O. caudatum* Charlesworth's var., and numerous finely spotted forms of *Odontoglossum crispum*. Among the *Cattleyas*, *Cattleya Wagnerii* *superba* var., *Leonora* was perhaps the most exquisite.

Mr. James Cypher, Orchid grower, Cheltenham, exhibited a group of Orchids that contained many fine *Phalenopsis*, *Miltonia* *vexillaria*, *Cattleyas*, and *Odontoglossums*. *Lælio-Cattleya canhamiana* *superba*, L.-C. Lady Miller, with apricot-coloured sepals and petals and crimson lip, and L.-C. Baroness Schröder were handsome hybrids in the group. Some good forms of *Odontoglossum crispum*, *Dendrobiums*, and many choice *Cypripediums* were prominent features.

R. Ashworth, Esq., Ashlands, Newchurch, near Manchester, exhibited a small group of Orchids that comprised a very handsome *Odontoglossum lochristiense* called *The Mikado*, yellow, blotched with chocolate-red; *O. crispum* *Coronation*, a large flower blotched with orange-brown on a white ground; several *Lælio-Cattleyas*, and others.

Mrs. Collingwood, Lilburn Tower, Alnwick (gardener, Mr. W. Lovett), showed some excellent *Vanda* *teres* and *Dendrobiums*.

In the group shown by Messrs. Hugh Low and Co., Bush Hill Park Nurseries, Enfield, *Lælia purpurata* varieties, *Cattleyas*, and *Lælio-Cattleyas* were the chief features. There were some beautiful forms of *Cattleya Mendelii* unnamed, with *C. intermedia* *alba*, *Cypripedium calceolus* *Sanders*, and a beautiful lot of *Cypripedium niveum* (white form).

M. A. A. Peeters, Brussels, exhibited three fine forms of *Odontoglossum lambeauium* (Rolfes *ardensissimum*  $\times$  *crispum*). One called *O. l. var. lucidum*, was especially good.

M. Ch. Vaylsteke, Loochristi, Ghent, showed a group of extremely fine *Odontoglossums*, together with a few *Cattleyas*. *Odontoglossum amabile* *Goliath*, a very large flower, blotched with pale red-brown upon a white ground, the tips being unspotted; *O. Peroultum* *Diana*, white spotted with pure purple, a beautiful flower; *O. ardensissimum* var., heavily blotched with dark crimson-purple upon a pure white ground, were some of the best.

Messrs. William Bull and Sons, King's Road, Chelsea, exhibited a group of Orchids in great variety. *Cattleya Mossiae* was finely represented; so, too, were *C. Mendelii* and *Odontoglossums*. The rare and comparatively new *Cymbidium rhodocheilum*, with green sepals and petals, the latter spotted with black, and crimson lip, was included. *Odontoglossum crispum* *xanthotes* was most beautiful. *Lælia purpurata* *King Alfonso* and *L. p. Prince of Wales*, two very fine forms, were conspicuous.

*Dendrobium dalhousieanum* *luteum*, a very fine form, was exhibited by W. A. Bilney, Esq., Weybridge.

*Cypripedium lawrenceanum* *hackbridgense*, with remarkably fine crimson colouring in the dorsal sepal, and *C. barbatum* *King of Spain* were shown by F. Wellesley, Esq., Westfield, Woking.

Major Holford, C.I.E., Westonbirt, Tetbury (Orchid grower, Mr. Alexander), exhibited two handsome forms of *Cattleya Mossiae*, named respectively *compacta* and *Countess Grey*.

Mrs. Ernest Hills, Redleaf, Penhurst (gardener, Mr. G. Ringham), exhibited a group of *Miltonia* *vexillaria*. The plants were finely flowered, and made a beautiful display.

Phaius Doris (*P. Cooksonii*  $\times$  *P. oakwoodensis*) was shown by N. C. Cookson, Esq., Oakwood, Wylam-on-Tyne (gardener, Mr. Chapman).

Sir Frederick Wigan, Bart., Clare Lawn, East Sheen, exhibited a group of Orchids that contained many beautiful and choice sorts. *Sobralia macrantha* *alba* and *S. xantholeuca*, *Dendrobium Falconeri*, a large plant in full bloom; *Miltonia* *vexillaria*, a mass of flower; *Lælio-Cattleya canhamiana* (*L. purpurata*  $\times$  *C. Mossiae*), bearing six very fine blooms; *Aerides Fieldingii*, *Oncidium metallicum*, *O. marshallianum*, and *Thunia* *veitchiana* were some of the most striking plants shown.

The group of Orchids shown by Jeremiah Colman, Esq., Gattton Park, Reigate (gardener Mr. W. P. Bound), was most pleasingly arranged, and contained many choice Orchids. In the centre of the group at the front *Cypripedium niveum* made a charming picture arranged on a bank of moss. *Cymbidiums* bordered on either side by the rich crimson *Masdevallia ignea*, completed the centre of the group. Many choice varieties of *Odontoglossum* were shown. *Lælio-Cattleya Phoebe*, L.-C. Sunrise, *Cochlidia noetzeliana*, *Masdevallia veitchiana*, and *Miltonia* *vexillaria* added some brilliant bits of colour.

Mr. John Robson, Altrincham, showed a small group of Orchids that contained some good varieties of *Odontoglossum crispum*, various *Cattleyas*, *Miltonia* *vexillaria*, and other showy Orchids.

Mr. W. J. Caparne, Guernsey, exhibited a group of cut *Cattleya* flowers, all of them forms of *C. Mossiae*.

#### PELARGONIUMS.

Mr. H. B. May, Dyson's Lane Nurseries, Upper Edmonton, showed some good double and single zonal *Pelargoniums*; among the singles, *Hall Caine* (scarlet), *Niagara* (white), *Mr. D'Ombrain* (salmon), and among the doubles *Lady Dorrington* (bright rose), and *Golden Gate* (scarlet).

The fancy *Pelargoniums* from Messrs. Heath and Son, Cheltenham, were very beautiful, and together with *Verbena* *Miss Willmott* and *Carnations* in variety made a very pretty group.

The zonal *Pelargoniums* from Mr. H. J. Jones, Lewisham, were very bright. They were arranged in large bunches, and made a brilliant display. *General French*, *Golden Glory*, *Hall Caine*, *Lilian Duff*, *Mary Hamilton*, and others were included.

Mr. Vincent Slade, Taunton, exhibited a beautiful lot of zonal *Pelargoniums*, making a bright display. *Mr. T. E. Greer* is a splendid scarlet; *Tresor* is a fine salmon-coloured double.

Fancy *Pelargoniums* were finely shown by Mr. W. J. Godfrey, Exmouth, Devon, in many beautiful sorts. *Bedding Geranium* *Duchess of Cornwall* (light salmon) is a charming variety, while *Ivy-leaved Pelargonium* *Devonshire Lass* (rose-pink) is very showy.

Baker's, Limited, Wolverhampton, showed a very fine lot of zonal and fancy *Pelargoniums*. *Purity*, a white fancy variety, and *aurora* *perfecta*, a rich orange-red single zonal *Pelargonium*, were especially fine.

A double pink zonal *Pelargonium* called *Pride of Essex* was shown by Mr. Hammerton, Epping, Essex.

#### STOVE AND GREENHOUSE.

*Clematis* in great variety and in well-grown plants came from Messrs. Richard Smith and Co., Worcester. This fine group was backed with well-grown pieces of *Rambler* *Roses* and *Aceras*.

Strikingly handsome was the group of stove plants set up by Messrs. James Veitch and Son, Limited, Chelsea. The *Caladiums* were specially good, *O. Rose Laing* being noteworthy. Choice plants, such as *Sandwichia nobilis* *variegata*, *Diefenbachia majestica*, *Ocotea* *Mrs. Ieston*, *Anthuriums*, *Marantas*, and other beautiful plants, were shown.

The whole of the north end of the big tent was filled by Messrs. Sutton and Sons, Reading. There were five distinct bays or groups, making one large group as a whole—*Schizanthuses* in variety, *Gloxinias* in varying colours and pleasing forms, superb examples of *Cineraria stellata* in most exquisite variety, forms and colours quite new to us. Of the *Calceolarias* it is impossible to speak in too high praise. Not only were the plants well grown, but the colours and the size of the individual blooms left nothing to be desired. The second corner was also filled with *Schizanthuses*, and the neat finish of the whole display was most marked.

*Azaleas* from Messrs. R. and G. Outhbert, Southgate, N., as usual, made a very striking display, many very pretty forms of these handsome flowers being in evidence. The group was most artistically disposed.

A group of flowering plants set up by Mr. William Ieston, Putney, S.W., was a pleasant break in upon all the warm colours that prevailed elsewhere. *Lily of the Valley*, *Liliums*, *Hydrangea paniculata*, *Saxifrages*, *Spiræas*, &c., banked with handsome *Palms*, made a fine exhibit.

A pretty group of *Caladiums* was neatly disposed by Messrs. J. Laing and Sons, Forest Hill, S.E. The plants were well grown and coloured.

From Messrs. George Jackman and Son, Woking, Surrey, came one of the charming groups of *Clematis* for which they are so famed. The new *Lady Northcliffe* is a great advance in the blues, and *Jackmanni rubra* most distinct.

*Rhododendrons* made a gorgeous display, a grand group from Messrs. J. Waterer and Sons, Limited, Bagshot, being a special feature of this great show. *Pink Pearl*, *Mrs. William Agnew*, *Kate Waterer*, and the *Marchioness of Tweeddale* were a few of the good things in this superb exhibit.

A beautiful, though somewhat formal, group of *Gloxinias* in many splendid shades of colour came from Messrs. John Peed and Son, West Norwood, S.E.

*Lilacs* and *Lily of the Valley* from Mr. T. Jannock, Dersingham, near Sandringham, were quite up to this firm's reputation. The *Lilacs* were particularly varied and pleasing, and the type of *Lily of the Valley* magnificent.

A very fine group of *Hippocrepis* was displayed by Messrs. Ker and Sons, Liverpool. Not only were the flowers large and the plants less tall than usual, but they embraced a very wide range of many intermediate tones of colour. We never remember seeing a better lot.

A group containing fourteen large and splendidly-developed *Schizanthus* came from Messrs. Garraway and Co., Clifton, Bristol.

*Begonias* were very fine. The group that came from Messrs. Blackmore and Langdon, Bath, was remarkable for the high quality of the plants and flowers. Superb examples of the double *Begonias* were abundant.

Messrs. Thomas S. Ware (1902), Limited, Feltham, had a grand lot of *Begonias* also. Both double and single forms were well shown.

*Gloxinias* and *Calceolarias* from Messrs. H. Cannell and Sons were excellent and tastefully disposed among Ferns. The glorious tones of the *Cannas* seemed to appeal to everyone. They were very striking and rich.

The *Sarracenia* from Mr. A. J. A. Bruce, Chorlton-cum-Hardy, are always looked for at the Temple Show, and the beautiful examples seen on this occasion had all their old charm for visitors.

A noteworthy group of foliage plants came from Mr. L. R. Russell, Richmond, Surrey. This included many choice plants of a varied character from the stovehouse.

The group of new plants by Messrs. Sander and Sons, St. Albans, is always one of the features of this great show. *Zamia horrida*, *Alcacia argentea*, and several good *Anthuriums* were among the choice things shown here.

The Ferns from Messrs. Hill and Son, Lower Edmonton, were extremely beautiful. Cocos and Phoenix made a welcome variation in this large display.

Well coloured foliage characterised the little group of Palms from l'Etablissement Horticole, Le Lion, Mont St. Amand, Ghent.

Mr. H. B. May's display of Ferns in a bold group was again an interesting feature. *Nephrolepis exaltata superba* gained a first-class certificate. This is a very handsome plant, beautifully crested. *Davallia tenuifolia Veitchii*, *Asplenium scandens*, and *Nephrolepis Piersonii elegantissima* were choice sorts.

*Primula obconica* in variety was exhibited by Mr. George Arends, Ronadorff, Barmen, Germany. These embraced a wide colour variation.

*Petunias* from Mr. William Robt. Chaplin, Waltham Cross, were pleasing, and included both single and double forms.

Messrs. James Carter and Co., High Holborn, had a series of interesting groups, comprising *Cinerarias* in variety, *Schizanthuses*, *Calceolarias*, and *Begonias*. *Gloxinias* and *Schizanthuses* were very good in this instance.

Messrs. James Veitch and Sons, Limited, Chelsea, made a beautiful exhibit of a miscellaneous character. This display included *Cineraria Antique Rose*, *Senecio auriculatissimus*, *Lobelia tenuior*, *Gerbera* (new hybrid), *Rehmannia angulata*, *Streptocarpus achimiflorus*, *Schizanthus*, and *Kalanchoe flammea*.

Messrs. Clibrans, Altrincham, had a table of stove and greenhouse foliage and flowering plants, including a good batch of *Kalanchoe flammea*. A small group of *Begonia morrisiana speciosa*, with its pendulous flower-stalks, made a pretty display.

Messrs. W. and J. Brown, Stamford, set up a group on a table, in which were included *Verbena Miss Willmott*, *Pinks* in variety, *Heliotrope Lord Roberts*, *Pelargoniums*, and many plants.

A pretty table group of foliage plants was sent by Sir Alex. Henderson (gardener, Mr. Bastin), chiefly composed of *Crotons* and *Palms*.

*Begonias* from Messrs. John Laing and Sons, Forest Hill, were good, and included many excellent double and single flowered sorts. This group was neatly displayed.

#### FRUIT AND VEGETABLES.

Messrs. Sutton and Sons exhibited Potatoes of this year's growth in more than forty sorts of the leading varieties. These Potatoes were grown from sets, planted on the 1st March last, under ordinary frame culture. Messrs. Sutton and Sons are to be congratulated on bringing before the public in this interesting way the valuable facts that with merely the aid of ordinary frame culture excellent crops of the best sorts of Potatoes can be grown at home at this early time of year. Messrs. Sutton also showed some twenty varieties of the choicest sorts of Lettuces. These delicious-looking Lettuces were grown in the open at Reading, and had no special cultural attention. They were taken straight from the ground and exhibited in pots for convenience sake.

The University College, Reading (instructor, Mr. C. Foeter), exhibited a fine collection of fruit and vegetables. Strawberries were remarkably fine both in pots and gathered fruit, Royal Sovereign being the variety.

Mr. Byron Gayford, Worthing, showed Grapes, Tomatoes, and Cucumbers. No names were given, but the Cucumbers were remarkably good.

Messrs. Laxton Brothers, Bedford, exhibited Strawberry Bedford Champion in pots and gathered fruit; they were remarkable for size and brightness. Laxton's Reward was well shown.

Messrs. William Catbush and Sons, Highgate, exhibited Rhubarb Hobday's Giant.

Mr. J. T. D. Whitaker, Benthams, York, exhibited Strawberry Archroyal, evidently a good cropper.

The Hon. A. H. T. de Montmorency, Carrickmines, County Dublin, exhibited well-grown Potatoes Sir J. Llewelyn, Evergood, &c.

Sir W. G. Pearce, Bart., Chilton Grange, Hungerford (gardener, Mr. Charles Beckett), made a splendid display of fruit, which included six varieties of Melons, Peaches Hale's Early and Waterloo, Neotaries, etc. This collection was most effectively displayed.

A. F. Walters, E.q., Bear Wood, Wokingham (gardener, Mr. W. Barnes), exhibited Melons Frogmore Scarlet, Ringleader, and Hero of Lockinge (several beautiful fruits of each), and a number of dishes of Apple Annie Elizabeth, the fruits highly coloured and of good size.

Messrs. George Bunyard and Co., Maidstone, staged about eighty varieties of Apples, all in splendid condition. Of these, King of Tompkins' County, Ontario, Lane's Prince Albert, Wellington, Hormead's Pearmain, Wagner, Winter Queening, and many others were worthy of note. Cherry trees carrying heavy crops of fruit made up a fine exhibit.

Messrs. J. and F. Chatfield, Southwick, exhibited six dishes of Strawberry Royal Sovereign; they were some of the finest we have seen.

Mr. S. Mortimer, Farnham, showed Carter's Sunrise Tomato, grown in pots, heavily cropped with long bunches of fruit; Sutton's Winter Beauty, Sutton's Al, and other sorts were good. Cucumbers Matchless and Telegraph were of the best selected forms.

Mr. R. Stephenson, Burwell, Cambridge, exhibited market bundles of Asparagus of fine quality.

Lady Warwick, Studley College, Warwickshire (gardener, Miss Faithful), exhibited a large collection of vegetables, salads, with a background of Currant Tomatoes grown in pots.

Mr. A. J. Harwood, Colchester, showed Asparagus in large bundles, of good size.

The Horticultural College, Swanley (superintendent, Mr. Lawson), exhibited a collection of vegetables—Marrows, Cauliflowers, Tomatoes, and Cucumbers, all of the best quality.

The Duke of Portland, Welbeck, Worksop (gardener, Mr. J. Gibson), filled a table about 40 feet long with a splendid collection of vegetables. Peas Early Giant, Green Gem, Empress of India, Duke of Albany, Excelior; French Beans Tender and True, Ne Plus Ultra (dwarf), and Canadian Wonder were first-rate.

Messrs. T. Rivers and Son, Sawbridgeworth, exhibited a splendid group of fruit trees in pots, chiefly Nectarine Cardinal; the trees were loaded with highly-coloured fruit. Peach Duke of York and May Duke Cherries were very fine.

#### HARDY PLANTS.

Messrs. Barr contributed a superb bank of hardy things. Tulips were very beautiful. There were charming masses of *Primula japonica*, *Gentiana verna*, *Phlox canadensis*, many beautiful *Irises* of the new *Regelio-cyclus* group, *Ramondias*, Spanish *Irises*, *Bamboos*, *Irises*, and *Acers* made a suitable background.

Mr. B. Ladhams, Southampton, showed many fine perennials, including the Dropmore variety of *Anchusa italica*, some charming masses of *Aquilegia Stuarti* var., *Oenoma Thomsoni* (with reddish flowers), *Eremuri*, single *Pyrethrums*, and *Pinks*.

Mr. W. Poupart, Twickenham, had a pretty mass of the Victoria Lily of the Valley, together with *Paeonia officinalis* in variety.

Mr. R. C. Notcutt, Woodbridge, had fine masses of Oriental *Poppies*, *Irises*, perennial *Cornflowers*, *Delphinium nudicaule*, *Tulips*, *Anemones*, and *Globe Flowers*.

A small yet compact group of the dwarfier things was presented by Mr. M. Priodhar, Christchurch, Hants. *Aubrietias*, *Ourisia*

*coccinea*, a lovely mass of scarlet, *Achillea rupestris*, *Dodecatheons*, *Hyacinthus amethystinus*, and its white form were notable.

Messrs. W. and A. Clark, Dover, had a large bank of flowering things, chiefly in the cut state, such as *Columbines*, *Irises sasanias*, *Globe Flowers*, Oriental *Poppies*, *Eremuri*, and *Campanulas*.

Mr. H. C. Pulham, Elsenham, Essex, set up a pretty group of the dwarfier alpine in a temporary rockery, grouping the plants in a very pleasing and natural way.

From the Guildford Hardy Plant Nursery (Mr. A. Upton proprietor) came another group of alpine and dwarf plants, such as the alpine *Asters*, *Gentiana verna*, *Ourisia coccinea*, *Ramondias* (very beautiful), *Saxifraga macrantha* (a most lovely plant with crimson flecked flowers).

A small group of alpine on rockery came from Messrs. W. and A. Clark, Dover.

The exhibit from Mr. G. Reuthe, Keaton, Kent, was replete with interesting and rare plants, as *Orchisee*, hardy *Cypripediums*, *Irises oristata*, *Aquilegia glandulosa*, *Trilliums*, *Saxifraga Boydii* alba, *Androsace helvetica*, *Saxifraga aizoon lutea*.

Messrs. Richard Smith and Co., Worcester, brought a showy group, in which were *Tulips*, *Paeonies*, *Eremuri*, *Globe Flowers*, and *Irises*.

Messrs. J. Cheal and Sons, Crawley, set up a rockery exhibit, arranging many good and showy alpine in a very pleasing way. The bold character of the grouping, apart from its naturalness, displayed a knowledge of this very interesting work.

The Craven Nursery, Clapham (Mr. R. J. Farrer), contributed a very charming and interesting lot of alpine. For example: *Anemone alpina*, *Edraianthus serpyllifolius* (violet-blue), *Androsace villosa*, *Myosotis rupicola* (very beautiful), *Gentiana verna*, *Saxifraga aizoon lutea*, *Ramondias*, *Daphne rupestris*, &c.

The Misses Hopkins, More, Cheshire, also staged alpine and rock plants in choice array. *Primula*, *Gentiana*, alpine *Phloxes*, *Saxifrages*, *Achilleas*, and many more.

Bees, Limited, Liverpool, also staged choice alpine, and the collection included a large number of good things as *Primula sikkimensis*, *Lithospermum canescens*, *Myosotis alpestris*, *Ramondias*, *Geothra*, *Symphandra Wanneri*.

Messrs. J. Backhouse and Sons, York, set up a very pretty rockwork arrangement. Here we noted choice tufts of *Gentiana verna*, *G. pyrenaica*, *Gerberas*, *Arenarias*, *Cypripedium macranthum*, white *Ramondias*, pretty *Orchisees* in groups, and *Daphnes*.

Messrs. Paul and Son, The Old Nurseries, Cheshunt, contributed alpine of the more reasonable kinds, together with *Irises*, *Paeonies*, &c.

A pretty improvised rockery exhibit was that from Messrs. Carter and Co., High Holborn. The arrangement was good and pleasing, the many plants employed, both in foliage and flower, displaying excellent taste in arrangement.

Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, contributed a group quite remarkable for its variety. *Lilies*, *Gladioli*, and *Irises* were largely shown. To these features a rockery exhibit was added this year. We take the pretty *Ixias*, the rich yellow of *Lilium monadelphium*, the elegant forms of the *Columbines* and grace of the *Heucheras*, the greater beauty of *Lilium excelsum*, the inimitable *Calochorti*, the glorious colouring of scarlet Oriental *Poppies*, the rich and ever-taking colour of *Lilium Hansonii* as among the leading features.

The group from Mr. Amos Perry, Winchmore Hill, contained a large number of very beautiful plants and flowers. *Eremuri* were particularly good and strong. *Geums* most showy, the lovely new *Phlox Laphami* quite a feature, while *Irises*, *Incarvilleas*, *Lilies*, as *speciosum*, *auratum* var., each made a display of their own.

Mr. William Sydenham, Tamworth, showed *Cornflowers*, *Scillas*, *Pyrethrums*, *Anemone sylvestris*, *Globe Flowers*, *Heucheras*, &c.

Messrs. George Banyard and Co., Maidstone, set up a fine bank of hardy flowers, notably Pyrethrums, Eremuri, Heucheras, Irises, Globe Flowers, Lilies, and the like.

Bakers, Limited, Wolverhampton, contributed a rocky arrangement, in which Gentians, Primulas, Androsaces, Saxifrages, Incarvilleas, Houseleeks, and other good plants were noted.

Mr. M. Pritchard, Christchurch, came up very strongly in the bolder herbaceous plants, the masses of Pæonies, Irises, Eremuri, Oriental Poppies, and the Dropmore variety of Anemone making a very effective display.

The Pyrethrums and Pæonies from Messrs. Kelway and Sons, Langport, were very fine. The former were chiefly of the single-flowered section, the latter including tree and herbaceous kinds, and in many charming colours. The white tree Pæony Queen Alexandra, with blossoms nearly a foot across, was very striking, and equally effective was Pæony Elizabeth of an intense coral red hue.

Messrs. George Jackson and Son, Woking, had a very pretty exhibit of alpines. Particularly good were such as *Oxymos taurica*, of which a fine mass was shown. Eremuri were also good, and such as Trilliums, the hardy Cypripediums, Gerbers Jamesoni, Spanish Irises, and many more.

Mr. W. J. Godfrey, Exmouth, Devon, brought a fine display of Papaver orientalis in many varied and beautiful shades, from salmon to crimson and ruby. These showy flowering subjects are worthy of every attention for garden decoration at this season.

#### OUTDOOR GROUPS.

Messrs. Fisher, Son, and Sibray, Royal Nurseries, Handsworth, Sheffield, made up one of their usual handsome groups of choice plants. *Ilex Hendersonii*, *I. F. W. Wilsonii*, *I. Mundyii*, *Acer japonicum*, *A. palmatum*, *A. magnificum*, *Dimorphanthus mandchuricus*, *Aureo marginatus* and the silver form of the same beautiful plant, *Hedera arborea amurensis*, and a series of handsome *H. ilies* made a representative group.

The rock and water garden exhibited by Messrs. Cutbush and Son was one of the leading features among hardy plant exhibits. Highly massed in the background, and planted with shrubs and B. m. in a very natural and artistic manner, the exhibit commanded attention at once. Flanked right and left with prominent mounds, whereon rock and other shrubs found place, the lower levels were most intelligently arranged with shade-loving Lilies on the one hand, with groups of Cypripedium speciosum, *O. chisos* and the like on the other.

A group of conifers, shrubs, &c., in which were some lovely Rhododendrons, was set up by Messrs. J. Waterer and Son, Limited, Bagshot, Surrey. Pink Pearl Rhododendron was very fine, and the conifers were handsome specimens.

Mr. David Russell, Brentwood, had a wealth of Asters and other foliage and flowering plants in a large group.

The group set up by Messrs. J. Cheal and Son, Crawley, Sussex, was a beautiful display. Flowering as well as foliage plants were in fine form and condition.

Messrs. Thomas Cripps and Son, Tunbridge Wells, set off their Asters in a very dainty manner. Large, well-grown Asters predominated, and these included all the best kinds.

Messrs. William Cutbush and Son, Highgate and Barnet, made another exhibit of their out bushes. Topiary work is one of their specialities.

Messrs. Richard Smith and Co., Worcester, had a charming lot of plants, set up under one of the trees outdoors. They included conifers and kindred subjects.

Japanese pigmy trees from Messrs. Barr and Sons, Covent Garden, were a feature of interest to many. Some of these trees were of great antiquity, one being 178 years old.

A bold and comprehensive group of Japanese Maples and other hardy plants was pleasingly

disposed by Messrs. W. Fromow and Sons, Chiswick.

*Metrosideros floribunda* was represented in a very interesting group of plants exhibited by Messrs. Hugh Low and Co., Eusfield.

A bed of double bedding Begonia Argus, with the variegated Silver Ager, made a pretty bed outside. This came from Messrs. Blackmore and Langdon.

Japanese pigmy trees from Messrs. Carter, High Holborn, were very quaint. Many of the trees were very old, and in perfect health.

Hardy trees and shrubs were grouped in an artistic manner by Mr. L. R. Russell, Richmond, Surrey. Asters, Dimorphanthus, Hypericum moserianum tricolor, and quite a host of good things were in evidence.

Messrs. James Veitch and Son, Limited, Chelsea, staged some of their newer introductions in the open. Of these we take especial note of *Primula cockburniana*, with its lovely flame orange flowers and whitish stems; the very strange and beautiful *Cypripedium tibeticum* of a dark maroon, strongly lined with green, and with purplish-coloured labellum; the very distinct *Androsace Henryi*, with white flower-heads and almost Heuchera-like leaves; together with fine examples of *Meconopsis integrifolia*, *M. pumila*, &c.

Rhododendrons in variety came from Messrs. William Cutbush and Son. In the same group were the blue Hydrangas and Verbenas Miss E. Willmott, King of Scarlets, and Snowflake.

#### AWARDS.

##### OFFICIAL LIST.

*Veitchian Cup* (50 guineas).—Messrs. Sander, St. Albans, for Orchids and new and rare plants.

*Gold Medal*.—Messrs. James Veitch and Son, for new Chinese plants, stove and greenhouse plants; His Grace the Duke of Portland, for vegetables; Jeremiah Colman, Esq., for Orchids; Messrs. Fisher, Son, and Sibray, for trees and shrubs; Messrs. Cutbush, for rockwork, &c.; Messrs. Sander, for Orchids, &c.; Messrs. Sutton, for greenhouse plants and vegetables; Messrs. Wallace, for Lilies, herbaceous and aquatic; Messrs. Ker, for Hippeastrums; Messrs. Charlesworth, for Orchids; Mr. George Mount, for Roses; Messrs. W. Paul, for Roses.

*Silver Cup*.—Sir W. G. Pease, Bart., for fruit; W. James, Esq., for Carnations; Martin Smith, Esq., for Carnations; Sir F. Wigan, for Orchids; A. T. Walter, Esq., for fruit; Messrs. Cutbush, for hardy Azaleas; Messrs. Richard Smith, for Clematis; Messrs. Carter, for flowering plants; Messrs. J. Waterer, for Rhododendrons; Messrs. Barr, for herbaceous, &c.; Mr. L. R. Russell, for hardy trees, &c.; Messrs. Cheal, for hardy trees, &c.; Messrs. Low, for flowering plants, &c.; Messrs. Banyard, for Apples and herbaceous; Mr. M. Pritchard, for herbaceous and Anemones; Messrs. Rivers, for fruit trees in pots; Messrs. Cannell, for Cannas, &c.; Messrs. Blackmore and Langdon, for Begonias; Mr. Perry and Messrs. Bakers, for herbaceous; Messrs. Paul and Son, for Roses; Messrs. Cripps, for hardy Maples and shrubs; Mr. H. B. May, for Ferns and flowering plants; Mr. Frank Cant, for Roses; Mr. D. Russell, for hardy trees and shrubs.

*Silver-gilt Flora Medal*.—Messrs. T. S. Ware, for Begonias and Carnations; Messrs. Jackson, for Clematis, &c.; Messrs. Dobbie, for Violets, &c.; Messrs. Fromow, for hardy Maples; Mr. C. Turner, for Roses and Carnations; Messrs. Bull, for foliage plants and Orchids; Mr. A. J. A. Bruce, for Sarracenias; Messrs. le Lion, for Palms; Messrs. Bickhouse, for rock plants; Messrs. Hill and Son, for Ferns; Mr. C. Engelmann, for Carnations; Mr. Arends, for *Primula obconica*; Lord E. B. Child, for Carnations; Mr. Farrer, for alpines; Messrs. Cypber, for Orchids; Mr. G. Benth, for herbaceous, &c.; Mr. H. C. Fulham, for rock plants.

*Silver-gilt Knightian Medal*.—Reading College for vegetables.

*Silver-gilt Bankian Medal*.—Mr. S. Mortimer, for Cucumbers, &c.; Messrs. Hogg and Robertson, for Tulips; Mr. E. Notcutt, for herbaceous; Messrs. Hobbles, for Roses; Mr. A. Dutton, for Carnations.

*Lindley Medal*.—Mr. C. Vaylsteke, for Orchids.

*Silver Knightian Medal*.—Messrs. Chatfield, for Strawberries; B. Stephenson, Esq., for Asparagus.

*Silver Flora Medal*.—Messrs. Laling, for Caladiums, &c.; Messrs. Eckford, for Sweet Peas; Sir A. Henderson, Bart., for greenhouse plants; Messrs. Bith, for Tulips, &c.; Mr. W. J. Godfrey, for Poppies, &c.; Guildford Plant Company, for rock plants; Messrs. Ladham, for herbaceous; Messrs. A. Wilson, for Tulips; Mr. H. Burnett, for Carnations; B. Ashworth, Esq., for Orchids; Mr. H. J. Jones, for Sweet Peas; Messrs. Kelway, for Pyrethrums, &c.; Messrs. B. B. Cant, for Roses; Mrs. Collingwood, for Orchids; Mrs. Hills, for O. chids.

*Silver Bankian Medal*.—Messrs. Peed, for Gloxinias; Messrs. G. and A. Clark, for herbaceous, &c.; Messrs. Linton, for Strawberries; Mr. W. Icton, for foliage plants; Mr. B. Gayford, for Grapes, &c.; Mr. A. J. Harwood, for Asparagus; Mr. E. Sydenham, for Sweet Peas; Mr. H. Crane, for Violets; Messrs. Dicksons, for Tulips;

Messrs. Beamsbottom, for Anemones; Messrs. Watkins and Simpson, for Sweet Peas, &c.; Miss Hopkins, for alpines; Mr. T. Jannock, for Lilies, &c.; Swanley College, for vegetables; and Messrs. Carter Page, for Dahlias.

#### NEW PLANTS.

##### FLORAL COMMITTEE.

*First-class Certificate*.—*Nephrolepis exaltata* var. (H. B. May, Upper Edmonton). *Nephrolepis exaltata elegantissima* (W. J. Godfrey, Exmouth).

*Award of Merit*.—Roses *Hiawatha*, *Wichuriana* type (F. Cant and Co., Colchester); *Hobbles*, Limited, Dersham; and W. Paul and Son, Waltham Cross; *Rose Kathleen*, multiflora (W. Paul and Son, Waltham Cross); *Vitis Henryana* (Hobbles, Limited, Dersham); *Clematis Lady Northcliffe* (G. Jackson and Son, Woking); *Begonia Mrs. J. B. Blackmore* (Blackmore and Langdon, Bath); *Begonia Millicent* (Blackmore and Langdon, Bath); *Begonia Alice* (Blackmore and Langdon, Bath); *Daphne rupestris* (R. Farrer, Clapham, Lancaster); *Carnation Mrs. W. James* (W. James, Esq., Chichester); *Rhododendron The Marchioness of Tweeddale* (J. Waterer and Son, Bagshot); *Gladiolus Ne Plus Ultra* (E. Wallace and Co., Colchester); *Hippeastrum Rose Madder* (R. F. Ker and Son, Liverpool); *Hippeastrum Jasper* (R. F. Ker and Son, Liverpool); and *Acrostichum decoratum* (J. Hill and Son, Lower Edmonton).

##### ORCHID COMMITTEE.

*Award of Merit*.—*Cattleya Mendellii* Mercury (Low and Co., Bush Hill Park); *Odontoglossum ardensissimum* Venus (Ch. Vaylsteke, Loochist); *Odontoglossum percutum* Orion (Ch. Vaylsteke, Loochist); *Odontoglossum percutum* Junon (J. Hye de Cran, Ghent); *Cattleya Mossie Jeremiah Colman* (Jeremiah Colman, Esq., Reigate); *Madevalla harriganii* Garton Park var. (Jeremiah Colman, Esq., Reigate); *Phaius* × *Doris* (Norman C. Cookson, Esq.).

"On Puddleton Quay."—It is a great pleasure to know that the Gardeners' Royal and the Corn Exchange Benevolent Institutions will benefit to the extent of £50 each from the receipts of the performance of Mr. Edward Sherwood's play, "On Puddleton Quay," which was performed recently at the Cripplegate Theatre.

**Horticultural Club**.—It is to be hoped that there will be a large gathering of members of the club on the 12th inst., when Mr. A. E. Brooke Hunt, of the Board of Agriculture, speaks after the annual dinner, at 6 p.m., on "Present Provision for Horticultural Education in England and Wales."

**Flower Shows at Birmingham.**—The first of two special flower shows arranged to take place at the Botanic Gardens, Edgbaston, will be held on Wednesday, the 13th inst. The hon. secretaries, Messrs. Humphreys and White-lock, will be pleased to receive entries as soon as possible, so that the necessary arrangements may be made. The exhibition will open at 12.30 p.m. and close at 7 p.m.

**Kew Guild dinner.**—One hundred and thirty-five members of the Kew Guild, which consists of those now working, or who have worked, at the Royal Gardens, Kew, foregathered at the Holborn Restaurant on Monday evening last, the 28th ult., the occasion of the annual meeting and dinner. Mr. B. Daydon Jackson, F.L.S., occupied the chair, and he was supported by Lieut.-Colonel Prain (Director of the Royal Gardens, Kew), Dr. Henry, Mr. R. Irwin Lynch, M.A., Mr. W. Johnson, Mr. Gidding, Mr. Watson (curator), Mr. Bean (assistant curator), and many Kew men, some from distant Colonies. A most enjoyable evening was spent, and the friendships and acquaintances made perhaps years ago at Kew were renewed. The chairman gave the toast of "The Kew Guild," to which Mr. J. Weathers replied. The toast of "The Chairman" was proposed by Mr. R. I. Lynch. Dr. Henry, in a happy speech, proposed the health of the new Director. Lieut.-Colonel Prain, who met with a most hearty reception upon rising to reply, said he thought it would have been better had they deferred saying good things of him until he had been at Kew a few years. The musical programme was an excellent one. The songs of Mr. Briscoe and the quartette, consisting of Messrs. Hillier, Haines, Devereux, and Pengelly, gave great pleasure to the audience. Among the Kew men present from abroad were Messrs. McMillan (Ceylon), Davies (Lucknow), Johnson (Gold Coast), and Wilke (Ritterdam).

# THE GARDEN.

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JUNE 9, 1906.

## IMPORTANCE OF GRADING AND PACKING FRUIT.

THE volume of the Royal Horticultural Society's Journal recently issued contains the report of the conference on fruit-growing held under the auspices of the society last autumn, and it should be in the hands of every grower who cultivates fruit commercially or otherwise. There is a vast amount of useful information in the various papers, but the importance of carefully grading and packing the fruit is insisted upon, a subject which we have for many years past brought to the notice of our readers. It is absolutely waste of labour to grow fruit for market unless it is tastefully and carefully packed, but the conservatism of the English fruit-grower refuses to recognise the folly of sending to market produce that has no chance whatever against importations from over the seas. We were recently looking at a consignment of Apples from New Zealand, and scarcely a fruit was damaged, all clean, wholesome-looking specimens of almost equal size and colouring.

It is astonishing the apathy shown by the average grower in this essential matter, and this is not the first conference the society has convened with the object of making the grower realise his shortcomings. Sir Trevor Lawrence pointed out in opening the conference that "in 1904 the value of Apples (raw) was £2,118,000, Cherries £319,000, Currants £143,000, Grapes £837,000, Pears £503,000, Plums £526,000, and miscellaneous—Strawberries, Peaches, Apricots—£102,000, making a total value of fruit which could certainly be grown in this country £4,548,000. Then, in addition to the fruit which could be grown in this country, there is an important element which is not really competitive because the fruit could not be grown in this country. But the total of all sorts imported during 1904 into this country represents a value of £10,237,000, four and a-half millions of which at least could have been grown in this country."

Mr. Bunyard insisted upon the necessity of organisation, and only by the exercise of business qualities is it possible to meet the foreigner. Organisation is one of the key-notes of success, and we are glad to see that this well-known authority advises the small

grower to cater for the local and retail trade rather than such a centre as Covent Garden, where he is unable to obtain an adequate return.

Grading and packing, Mr. Cheal also pointed out, are "most important considerations. It often pays to select the best fruits only for market, and by carefully and tastefully packing these (in the case of the better class fruits with tissue paper) in flat boxes, more money may be made from them than from the whole crop, including smaller fruits."

One of the most important contributions to the conference came from Mr. James Harper of Dublin, who summed up the matter tersely in the following paragraphs:

"The grading and packing of fruit have until quite recently been considered by the majority of fruit growers in the United Kingdom as of secondary importance. The primary objects appear to have been to grow large quantities of selling varieties, to sell them in returnable hampers, and to consider economy rather than efficiency, so that even if their produce only realised low prices they would still make a profit. Recently attention has been drawn to improved methods of grading and packing by the superior work of other fruit-growing countries, and it has now come to this—the home grower who desires to make fruit-growing pay must devote more time and attention to grading and packing, if he is to hold a place in the home market against his foreign competitors.

"There does not appear to be any question as to home-grown produce being equal, if not superior, to most of that imported; and it is beginning to be appreciated that, provided it is graded and packed thoroughly well, it can hold its own with the bulk of the importations from abroad, if it does not eventually render much of these importations unnecessary. At the outset one suggestion may be urged. If the home grower will, in the future, turn his attention to growing fewer varieties, and growing these of better quality and more even in size, he may be able to get a better return than at present. In a sentence, his watchword should be 'quality, not quantity.'"

There has been within recent years a distinct improvement upon the actual cultivation and selection of varieties. The grower for market now restricts his selection to a few of the most attractive fruits,

sometimes at the expense of quality. Careful grading, not as Mr. Harper points out in this report, "putting small fruit at the bottom of the package, and 'topping up,' which he rightly describes as dishonest packing, and organisation will bring success to the English fruit-grower, and unless these principles are acted upon it is hopeless to expect profitable returns. We hope to illustrate shortly the best ways of packing; the grading must be left to the common-sense of the grower.

## BRITISH GARDENERS' ASSOCIATION.

FROM the annual report of this association, which was read at the annual general meeting on the 30th ult., we are glad to learn that "steady progress has been made in every direction, and the association now consists of over 900 trained and qualified members. It is confidently anticipated that this number will be considerably increased during the ensuing year." A report of the meeting appears on another page, so we need only now refer to one or two points of importance which were before the meeting.

We can only view with apprehension the deletion of the footnote to the recommendations of the executive council, which emphasised the fact that they were recommendations only, and not rules. The recommendations refer principally to the questions of wages and hours of labour, and we believe it was at the instance of many members of the association that the remarks in the original prospectus were altered to their present form, and to draw attention to the fact that they were not rules, the footnote was inserted. As Mr. Pearson pointed out, many of those who read the rules and recommendations might easily fail to notice the important difference if attention were not pointedly drawn to it. We know that gardeners feel strongly on these points, and regret that the meeting thought fit to delete this, in our opinion, all-important footnote.

With reference to the rule which aims at assisting members to obtain compensation in case of accident, and also at furnishing advice in cases of dispute or misunderstanding between employers and employed, Mr. Watson objected to the words "to furnish advice." "See that the gardener gets justice instead of giving him advice," said Mr. Watson. Mr. Stocks went a great deal farther than this, and suggested that the association should be prepared to spend its last penny in defence of a gardener who, for instance, had been wrongfully dismissed. We are tempted to paraphrase the famous dictum, "C'est magnifique mais ce n'est pas la guerre."



The association has a balance of £273 14s., and has just passed its second birthday! As Mr. Pearson pointed out, to tamper with the small balance the association has would be the height of folly. If the British Gardeners' Association, which we believe to be capable of doing a great work among the gardeners of the United Kingdom, and of benefiting employer and employed alike, will be content to crawl before it attempts to walk, and to walk before it tries to run, it will be laying a sound foundation upon which to build a lasting superstructure; if it attempts the impossible, to mature before it has developed, it will, like bolting Cabbages, run to seed. Happily the executive council are fully alive to the difficult and delicate task before them, and can be relied upon to proceed with caution. They must, however, be supported by the members.

## PRIZES FOR GARDENERS. JUNE.

### SMALL FLOWER GARDEN.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best essay upon "How to Lay Out a Flower Garden of not more than Half an acre in Extent."

A simple plan to show the proposed design, and also a list of the plants used, must be given.

The remarks must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than June 30. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

June.—Messrs. J. Waterer and Sons' Exhibition of Rhododendrons at the Royal Botanic Gardens, Regent's Park, lasting throughout the month.

June 12.—Royal Horticultural Society's Exhibition and Meeting. Horticultural Club, 6 p.m. Royal Counties' Agricultural Society's Show, North End, Portsmouth.

June 13.—Sixty-seventh Annual Festival Dinner of the Gardeners' Royal Benevolent Institution at the Hotel Metropole, at 6.30 for 7 precisely. Chairman—Lord Balfour of Burleigh, K.T. Royal Botanic Society's Great Summer Show in their Gardens, Regent's Park (three days).

**Burbidge memorial.**—The members of the Irish Gardeners' Association being anxious to establish a permanent memorial to the late F. W. Burbidge, M.A., V.M.H., who not only in his capacity as president contributed largely to the sound basis on which it now stands, but so closely identified himself with the best interests of gardening, have concluded that of several suggestions made as to the form such memorial should take, a library, to be called the Burbidge Memorial Library, is the most suitable. The Burbidge Memorial Library is intended for the use of the Irish Gardeners' Association, the members of which are distributed over a wide

area of our country. Facility will be afforded for country members to obtain benefit of the same. To make the library worthy of its object as a memorial, it is the feeling of the special committee constituted to carry it out, that in spite of the cheerful and ready response of the members, more help is necessary than can be obtained within the limit of the association, but that the late curator of the Trinity College Botanic Gardens having been so widely known and universally respected, this memorial will sympathetically appeal to many garden-lovers who knew him. To this end the committee respectfully ask your kind consideration of the matter, and whether it be direct pecuniary assistance for the purchase of books, or the gifts of any botanical or horticultural works, either will be equally esteemed.—E. KNOWLDIN, Hon. Secretary Burbidge Memorial Committee, 15, D'Olier Street, Dublin.

**Mummy Wheat.**—In THE GARDEN (May 26) I see a reference to "Mummy" Wheat. A good many years ago I found a curious species of Wheat, grown in the north-east of Portugal (Province of Trás-os-Montes), which had five to seven ears on each stem. I sent specimens to Mr. Peter Barr, who found that the same ears were being sold in England and elsewhere as "Mummy" Wheat or "Seven-eared" Wheat, and I believe he exposed the fraud. It is curious also that a Lemon in the form of three fingers, which is depicted on ancient Egyptian monuments, is also found in old orchards in the Douro districts, among the port wine vineyards. We find in Portugal many rare plants brought centuries ago from China, India, Japan, Ceylon, and Egypt, for in those days Portugal was almost the only country which had commercial and religious connexions with these countries.—BARON DE SOUTTELLINHO, F.L.S., Portugal.

**Wistaria multijuga rosea.**—In THE GARDEN, May 26, page 283, it is mentioned that Mr. Gumbleton, of Queenstown, was the only person who had flowered the above in Europe. I flowered it two years ago here, and it has flowered profusely since. I have the following species and varieties of Wistaria, all of which flourish and generally give seed: Wistaria sinensis, s. alba, s. fl.-pl., multijuga, m. alba, and m. rosea; Wistaria (?), a curious late flowering species which I received from Japan. It flowers a month or six weeks later than sinensis, the flowers are semi-double, and of a pale porcelain blue colour; I believe it to be a wild Japanese species. At Kew it was said to be a semi-double variety of W. sinensis, but it differs so much in leaf, flower, seed-pod, and in flowering so late, that I think it a distinct species.—BARON DE SOUTTELLINHO, F.L.S., Portugal.

**Sparrows and Laburnum.**—I noticed, strewed under a Laburnum tree growing alongside a wall of the house here, a great quantity of sprays of the Laburnum just coming into full flower. As I suspected sparrows were the culprits, I told my gardener to take all the sparrow nests he could find, especially in an old ivy-covered wall near this Laburnum tree. He came to me a short time after and produced a sparrow's nest made almost entirely of sprays of Laburnum flowers. It had evidently been the work of only one or two days, as the flowers were not perished. That sparrows are most destructive to flowers and fruit-buds I well knew, but it was news to me that they should make their nests of the flowers. They waste as much as they take, as the bottom of the tree was strewn with the flower-sprays.—G. D., Cheshire.

**Violas at the Temple Show.**—There were several beautiful exhibits of Violas or Tufted Pansies at the recent Temple Show, and few flowers were more admired than those which were shown by several specialists. Messrs. Dobbie and Co., Rothesay, exhibited many beautiful sorts of Violas and Pansies. Among the former Effie, a lovely flower with white centre

and broad margin of lilac purple; Isolda, yellow, and Bethse, large white, were very beautiful. The Pansies were remarkable for their brilliant and varied colouring. Messrs. Baker's, Limited, Wolverhampton, also showed a delightful lot of Pansies and Violas. Among the latter Blue Diamond, one of the best; Minnie J. Ollar, primrose and lilac; William Lockwood, rich yellow, were especially fine among a grand collection. Mr. William Sydenham, Tamworth, showed many of the best Violas. We liked none better than Grey Friar, illustrated in THE GARDEN last week, which is a charming lavender-coloured variety; Commander, dark purple; Admiral of the Blues, purplish blue, were other fine sorts in a representative collection. Mr. Howard H. Crane, Highgate, N., showed many lovely Violas and Violettas. Miss E. M. Cann was one of the best Violas. This is a rich golden yellow, the finest of its colour we have seen. Primrose Dame, pure primrose; Duncan, purple, and Cream King were others in a charming exhibit.

**National Rose Society.**—The great summer show of this society will be held in the Royal Botanic Gardens, Regent's Park, on Thursday, July 5. Two Champion Challenge Trophies will be competed for, and numerous other cups and pieces of plate and money prizes to the value of £300. The report of the committee for 1905 states that during the past year 422 new members have joined the society, a greater number than in any previous year, bringing the total number of members to 1,637. The receipts from all sources during the year, including a balance in hand of £318 19s. 11d., amounted to £1,851 13s. 11d., and the expenditure £1,510 13s. 10d., leaving a balance of over £340. Already about £150 has been received or promised to the Dean Hole Memorial Fund, and a final appeal has been issued. The demand for the "Handbook on Pruning Roses" has already far exceeded that for any previous publication of the society. A new official catalogue of Roses is to be drawn up on original and practical lines, and an annual publication, dealing with matters of interest to members, is also to be issued. All who are interested in Roses should join this society. Members subscribing one guinea per annum are entitled to six 5s. tickets, and subscribers of half a guinea to three 5s. tickets to the Metropolitan show, or any of the tickets may be used for the provincial show. Tickets for the autumn Rose show, and many useful booklets, giving valuable and practical hints on Rose growing, are also sent to each member. The honorary secretary is Mr. E. Mawley, Rosebank, Berkhamsted, Herts.

**Gardeners' Royal Benevolent Institution.**—The sixty-seventh annual festival dinner will be held in the Whitehall Rooms, Hotel Metropole, on Wednesday, the 13th inst., at half-past six o'clock for seven o'clock precisely. The Right Hon. the Lord Balfour of Burleigh, K.T., will take the chair. The report for 1905 states that at the beginning of the year there were on the funds 214 persons, 127 men and 87 widows, receiving £20 and £16 per annum respectively for life at an annual cost of £3,792, being an increase of seven persons over that of the previous year. The special funds at the disposal of the committee are of the greatest benefit. The income from the Victorian Era Fund has been applied in affording assistance to the unsuccessful candidates at the last election who were formerly subscribers, £157 having been distributed among them during the year. The income from the "Good Samaritan Fund" has enabled the committee to make grants of nearly £100 as temporary help in cases of most urgent distress and need. Subscriptions for this excellent and most deserving institution for the support of aged and distressed gardeners may be sent to the secretary, George J. Ingram, 175, Victoria Street, S.W.

**Sedum spectabile rubrum.**—Whether called rubrum or atropurpureum—and

I have seen it under each name—this new variety of the old spectabile is a great improvement in colour on the common form. It is much richer in appearance, and, being as easy to grow, ought to supersede it entirely. It really is far superior, and approaches crimson in tint.—T. J. WEAVER.

**Apple Hanwell Souring.**—You may be interested to know that on Saturday, May 19, we were cooking Apple Hanwell Souring, perfectly sound and good. There is no Apple to equal it for late cooking purposes; it cooks so very quickly, and has so good a flavour. We never store any other late Apple here, as this is always reliable. It is not easy to get them, however, and I believe that trees take some years before bearing any fruit. I got three half-standards five years ago, and only one is flowering this year for the first time.—MRS. FLECKER, *Dean Close School, Cheltenham.*

**Dendrobium thyrsiflorum.**—Mrs. Stanyforth, Kirk Hammerton Hall, York, sends a photograph of this Dendrobium, with the following note: "I enclose a photograph of a Dendrobium thyrsiflorum. It has just finished flowering, and had ninety-six racemes on, including three on one bulb. I do not know how old the plant is, but we have had it nineteen years in the collection, and of late years it has grown and flowered freely. It had over sixty racemes two years ago. It was repotted then, and is now in a wooden basket about 15 inches square and 12 inches deep."

**Some Richardias in Kew Gardens.**—An interesting series of Richardias was recently flowering in the T range at Kew, the following being all represented: *Richardia elliotiana*, undoubtedly the finest of the golden-flowered Richardias, as it is of a better constitution than its nearest rival, *R. Pentlandi*, though the individual flowers of this last are as good as the other. In *R. Pentlandi* the leaves are green, whereas in *R. elliotiana* they are spotted with white. *R. hastata*.—A pale sulphur spathe, marked with purple at the base of the interior, while the leaves are spotted in the way of *R. elliotiana*, but in *R. hastata* the blotches are fewer in number. The Kew plant differs from *R. hastata* as generally cultivated, as in this last the leaves are green and the flower rather more yellow. *R. melanoleuca*.—As grown this did not differ in any marked manner from *R. hastata*, except that its leaves are green and the purple base extends rather further up the flower. *R. Rehmanni*.—This differs from all other Richardias in having lanceolate instead of sagittate leaves. About a dozen years ago this species had much attention directed towards it as a new pink-flowering Richardia, but in this country at least it has not borne out its earlier description. It is a comparatively dwarf plant, with small spathes tinged principally on the outside with rosy purple. These Richardias, it may be noted, are often popularly termed Callas.—H. P.

**Primroses or Polyanthuses.**—I am somewhat surprised to find anyone to-day questioning the respective merits of the above appellations, or their fitness as applied, and applied from time immemorial, to garden forms of *Primula vulgaris* and *P. veris*. Was anyone ever heard to describe the wild Primrose as a Polyanthus, or the Cowslip or Oxlip as a Primrose? Why even the National Auricula Society has ever since its formation admitted the distinction by having classes for Primroses and Polyanthuses. Having been, perhaps, associated with these hardy flowers as much as, if not more, than anyone else for fully thirty-five years, and having been the raiser by crossing of what was once known as *Primula auriculiflora*, a beautiful single Primrose, with the large lilac Primrose put into commerce so many years ago as *Primula altaica*, though really a large Primrose, and from out of which came the once-famous Bedford strain; and having also during many years done much to improve and develop the race of

border Polyanthuses, I may be assumed to know something about what I have written. To say the Primroses are Polyanthuses with undeveloped stems is absurd reasoning. It is because the latter have those developed truss-stems and short flower-stems producing clustering flowers that they are termed Polyanthuses. The Primrose neither develops the truss-stem nor has short, stiff flower-stems, but individual long ones, which makes the distinction. Still further, I always found a true Primrose strain to come into flower from four to six weeks earlier than Polyanthuses. As to the merits of the clear-cut yellow eye in Polyanthuses or Primroses, all depends on whether these flowers are looked at with the trained and refined eye of a florist or whether they are admired solely for their size. What applies so vividly to alpine Auriculas, for instance, applies with equal force to the flowers under discussion.—A. D.

**National Tulip Society's show.** The thirteenth annual southern exhibition of this society was held on the 23rd ult. in the Botanic Gardens, Regent's Park. There were some lovely flowers among the florists' Tulips, while non-competitive exhibits of garden varieties added largely to the attractiveness of the display. The chief prize-winners in the classes for the various types of florists' Tulips were Miss Willmott, Miss Harcourt, Messrs. A. D. Hall, J. W. Bentley, W. Dunn, W. Peters, A. Chater, R. W. Hall, W. O. Bull, Bartleet, and J. F. Kew. The exhibit that won for Miss Willmott the first prize in the class for twelve dissimilar rectified Tulips contained some beautiful blooms, e.g., Sir Joseph Paxton, Adonis, Annie McGregor, Mrs. Collier, &c. The premier flamed Tulip was Mabel in Miss Willmott's first prize lot of twelve dissimilar rectified Tulips; the premier feathered flower was Attraction, in Mr. A. D. Hall's second prize stand in the same class. Mr. A. D. Hall showed the best breeder Tulip in Diana Vernon (seedling). This was in his first prize exhibit of six dissimilar breeder Tulips. The gold medal for the best honorary exhibit of Tulips was awarded to R. H. Bath, Limited, Wisbech, for a splendid display. Large silver-gilt medals were awarded to Alex. Dickson and Sons, Limited, Newtownards, Ireland; Barr and Sons, King Street, Covent Garden, W.C.; and a large silver medal to Hogg and Robertson for very attractive exhibits of Tulips.

**A new Primula from China—Primula cognata (Duthie).**—This new Primula is one of the many new plants introduced from Western China by Messrs. Veitch, through their collector, Mr. E. H. Wilson, who found it growing along with *Meconopsis pumila* in open valleys in North Western Szechuen at an elevation of from 10,000 feet to 13,500 feet, usually on loamy banks. Flowers appeared on some of the seedlings raised at Coombe Wood Nursery in the autumn of last year, but were too small for identification. In April of this year the plants flowered freely, and on being sent to Kew it was found to be a new species, to which Mr. Duthie gave the name of *cognata*. It belongs to the farinosa set of the genus, and reminds one at first sight of *P. longiflora*, although it has not so long a flower-tube. The leaves and stems are slightly mealy, while the lavender-coloured

flowers are about the same size as those of the last-named species. Like many of the members of this popular genus, *P. cognata* appears to be only a biennial. Seeds, however, are now being freely produced by the plants, and it will evidently flourish under the conditions accorded to the members of the farinosa section. While not so valuable, from a garden point of view, as many other Primulas from that part of the world, like *P. pulverulenta*, *P. cookburniana*, *P. vittata*, and others, *P. cognata* is an interesting addition to a very large family of valuable garden plants.—W. I.

## DAFFODIL NOTES.

### YELLOW STRIPE DISEASE.

FROM the time I gave the name to the Daffodil M. J. Berkeley the leaves have almost always shown the yellow stripe, a characteristic of the varieties of major of which I found several among Leeds' seedlings. I named some of these, but finding them like the parent, shy flowering on some soils, they went into the



A NEW PRIMULA FROM CHINA (PRIMULA COGNATA).

mixtures for naturalisation. I have at present several bulbs of M. J. Berkeley in the border, not one in flower or showing bud; but naturalised in grass the variety surpasses in size of flower all other yellow trumpets. The leaves in both cases have the yellow stripe. It is now thirty years since I named this Daffodil. It will be of interest if some of your correspondents will say how the leaves of this grand variety are with them generally. My theory is that it is caused by some inherent weakness.

### HOOP PETTICOAT DAFFODIL.

W. Irving (page 222 and 223) states that *Corbularia conspicua* is found naturally in wet places in Spain. I searched Spain and Portugal for this variety, and came to the conclusion that it does not come from these countries at all. When in Tangiers the late Mrs. Brooke informed me that a yellow Hoop Petticoat grew there, and promised to send me some bulbs, but did not. Many of your readers winter there. Perhaps they will look out and send me some bulbs. We know it grows freely in the Channel Islands, and up to the present time we know no more about its home. I have now as an edging to a bed two varieties of this Daffodil, one from Portugal, one



HOW TO SUPPORT MELON FRUITS.

from Spain. The one from Portugal grows at a place called "The Marshes."

I do not think Mr. Irving will find in the Kew Herbarium a pressed specimen of *C. conspicua* from Spain; if there is, I shall be glad to know who collected it and when and where. In the midst of "The Marshes" referred to is an island covered with old Fir trees, soil pure sand. On this island grows a very small *Corbularia*, and within a few yards in the wet grows a *Corbularia* resembling *serotina*, figured in "Sweet's British Flower Garden." It is called *N. turgidus* by Salisbury, and is said to grow at Tarbes, Hautes Pyrenées. I have searched for it there, and have employed searchers, and the only *Corbularia* found growing there was the sulphur-coloured *Corbularia*. The one from "The Marshes" in Portugal had large flowers and long, whipcord-like leaves, answering to Sweet's plate. This and all the Peninsular *Corbularias* may be classed as early flowering.

I suggest someone should investigate this matter. Mr. Bourne should do so, and correct his next edition. He may possibly find *Corbularia serotina* among *C. conspicua*. Once I had the plant, but lost it, and have been on the search for it ever since. PETER BARR, V.M.H.

## THE FRUIT GARDEN.

### APPLE HANWELL SOURING.

**W**HATEVER may be the merits of this Apple when grown in the northern counties, it seems not to be much known southwards. Very probably our more southern climate is too dry to produce really good fruit of the variety. It is saying a good deal for this or any other Apple that it is the "best late one." That character may be due to its strictly acid nature late in the spring, acidity being much developed with age. Still, it must for very late work be a good Apple indeed that can excel either for cooking or briskness of flavour such varieties as Wellington, Northern Greening, or Newton Wonder. I may mention that Hanwell Souring is listed by Messrs. J. Veitch and Sons, and is by them advised for bush culture. That fact shows that

the variety southwards needs more feeding and watering than ordinary orchard trees habitually obtain. A. D.

### ABOUT MELONS.

In the cultivation of Melons there are several details of importance. One of the most important is to endeavour to fertilise three or four flowers, or, as the gardening term has it to "set," three or four fruits at the same time. How the flowers are to be fertilised is clearly described and illustrated on another page of this issue. The only way to ensure a regular crop of fruit is to wait until four or five female flowers are open at the same time, and all must be fertilised on the same occasion. It often happens that one or perhaps two female flowers only open together; when this is the case they should be pinched off, then when the plant has made more shoots there will be a greater likelihood of more female flowers being open together. If one fruit is "set" by itself it will invariably be found to be the case that this particular fruit develops rapidly, while any others which may be "set" subsequently make slow progress, and never make such fine fruits as the one first "set." It is to avoid this that it is good practice to fertilise a number together. As a rule it is not advisable to leave more than four fruits on a plant if very fine fruits are desired. It is a good plan always to "set" more fruits than are actually required, for then one can make a selection of the best. When the fruits are about the size of a pigeon's egg, or even before then, it is quite easy to see which promise best. Select four fruits as nearly as possible of equal size, and pinch off the others. There is then every chance of all ripening.

Another point worth drawing attention to is that of watering. When the plants are in full growth they need a good deal of water, especially during hot weather. When watering, however, care must be taken not to allow water to touch the base of the stem, for if this is continually made damp it is more than likely that the dreaded disease of canker will set in, the stem will decay, and the whole plant collapse. Experienced Melon growers always keep the surface soil for about 2 inches around the base of the stems dry. When once canker is perceived, the best thing to do is to apply Portland cement, putting it dry on the affected part. If the disease is not stopped by

the first application, more must be put on. This sets hard and prevents the disease from spreading, often prolonging the life of the plant sufficiently to enable it to mature its crop of fruit.

The accompanying illustration shows an excellent and simple method of supporting the fruits when they become so heavy that support of some kind is necessary. Some growers sling pieces of board underneath the fruits for the latter to rest upon, but these have a great disadvantage in that moisture is liable to settle upon them and cause the base of the fruit to decay. An even simpler method than that shown in the illustration is to support the fruits by means of two pieces of strong raffia or the new raffia tape, by tying them to the trellis in such a way that one piece crosses the other at right angles underneath the fruit. The net is, perhaps, safer than this, for as the fruits reach their full size they become heavy, and in a warm, moist house the raffia is apt to be weakened and might possibly collapse. T.

### PINCHING RED CURRANTS.

EARLY in June some time may be well spent in going over the Red and White Currant bushes and pinching out the points of the young shoots. The objects of this course are two-fold. In the first place, by the removal of superfluous growth light is admitted to the bushes for the benefit of the fruit, and the force that would otherwise be expended in making useless wood is concentrated in the development of the fruit. Secondly, it invariably happens that aphides congregate at the tips of the shoots, and being underneath the leaves they are not easily dislodged by any insecticide. If left to increase the aphides work down the branches and spoil the fruit by covering them with the sticky honeydew which these insects exude, but if the points of the shoots are promptly pinched out the aphides are removed and there is no fear of further mischief. Again, by properly pinching the shoots, the shape and character of the bush are maintained. It is surprising what a number of lanky, many-stemmed Red Currant bushes one sees in gardens. They occupy much room, and, of course, produce some fruit, but it is a poor sample when compared with the long bunches of large clear berries that are picked from compact, closely-pinched and single-stemmed bushes. The Red Currant is an accommodating fruit, and will bear even under adverse circumstances, but it is an open question whether there is another fruit in the garden which is more neglected, especially where the formation of bushes is concerned. H.

## THE PROTECTION OF WILD FLOWERS

(Continued from page 290.)

It is not only London; from Plymouth, Brighton, and most of the large towns comes the same cry—how shall we save our wild flowers? In Folkestone one sighs to see the dying bunches of the local *Orchis purpurea* (*fusca*), one of our most striking British species, hawked about the streets. The commonest Orchids of that district show signs of diminution. Primroses are not to be picked by Londoners anywhere within a radius of twenty miles; these hardy plants are vanishing even from Epping Forest, and so is the daring and generous Foxglove. Fifty years ago the English Maidenhair (*Asplenium Trichomanes*) and the Hart's-tongue Ferns were easily found near London; it is only thirty years since the shy Sundew (*Drosera*) and the pink-budded Buck-bean (*Menyanthes*) were flowering by a Hampstead pond. Drainage was responsible for the death of these. Was this loss unavoidable? Had public opinion been strong enough,



perhaps something might have been done to save this piece of ground.

To return to avoidable causes, deruralisation is the first mentioned. Why, when our country lanes are gas lighted, must the turf ending of the footpaths be replaced by kerbs of cement or stone? Why are our hedge banks formalised by being plastered with mud laboriously excavated from roadside ditches? Why are the highway strips of grass destroyed and taken from us even when the road is wide enough to allow for the refreshment of their greenness? Such trimming of the turf along Watling Street destroyed the only locality in Northamptonshire in which the beautiful *Eryngium campestre*, a scarce and deeply interesting plant, might be found growing wild.

Then smoke. Just a few words on smoke. Let Barnes Common tell us of the rare plants it has killed since the year 1882, when Professor Paley made a list of them, or Epping Forest, who is lamenting her lost lichen flora. Even from the distant Surrey hills come whispers of anxiety for the Juniper trees that are now feeling the effects of London smoke.

We must give a hint to tourists and golfers. Both do damage. Gently we would ask the latter to be careful of the flowers. At New Romney in Kent some of them have destroyed the same species we have already sung a requiem over at Northamptonshire. As for tourists, they love to hunt for specimens; it is their cheapest, easiest pastime, but if they see a plant that is new to them, and so is coveted, do they treat it with fairness and leave a part of it intact, or do they root it out? Some few perhaps will label and preserve the victim dead, but far more probably a few days or weeks will see the precious treasures of the holiday-time become of no account—they will be thrown away as rubbish.

It is time to talk of remedies, a pleasanter task than finding fault. In addition to smoke abatement and persuading county councillors not to permit the deruralising of our country roads, the following measures are recommended: "Concealment, enclosure, cultivation of wild forms, transplanting, reintroduction, education, moral suasion, and legal protection, whether by existing laws or by fresh legislation."

Concealment: Guide-books need not tell people where to hunt for rarities. Enclosure is expensive. Transplanting and redistribution are difficult and sometimes risky; we must not mix localities to confuse the student. Education and moral suasion are good, very good indeed. Enlightened public sentiment is what all wild-flower lovers must work and pray for; without it we shall never get the legal protection that is so greatly needed, and would prove our native plants' most valuable safeguard.

The writer has talked with many men of law upon the subject of wild plant protection, and cannot help thinking that there are points on which the law is "quaint." Quaint is not the right word, but the nearest. Perhaps that eminent lawyer who wrote upon a board that overlooked his property "Trespassers will not be prosecuted because they cannot" might find a better. It is "quaint" that if an English brigand chooses to walk into my wild or even into my formal garden and take away my Primroses, my Foxgloves, or my Woodruff, I have no redress. I believe I am right in saying that wild plants cannot be stolen; they are

common property, and no one can be taken up for trespass unless he can be proved to have done damage. Luckily our native brigands, many of them, like caged lions and tigers, do not know their power, so one is left pretty free of them; but one sees the difficulties that lie in the path of large property owners. What is to be done with a man who is haled by the law for stealing *Thlaspi perfoliatum* if he declares he thought he was only gathering Chickweed? And who is to draw the line between cultivated garden flowers—to steal which is theft—and the wild or semi-wild flowers that to us are just as valuable? Lines are not, indeed, they cannot be, drawn, and confusion prevails.

To note what steps are taken in other countries that are suffering just as we are is useful. In the United States laws have been passed for the protection of special plants. In Switzerland, Italy, Savoy, and to some extent in Connecticut, species are scheduled. In Savoy the uprooting of Edelweiss, Cyclamen, Rhododendron, Gentian, and several other plants is strictly prohibited. The transport, hawking, and sale of roots of alpine plants are also forbidden, and the obligation of enforcing orders is laid on mayors, gendarmes, police, and forest-guards.

We may take heart. What is done in free America and in Switzerland can certainly be done in the British Islands. We remember our Wild Birds' Protection Act and the good it has done in a few years. Why cannot

we have a "Wild Plant Preservation or Protection Act" devised on similar lines? There are many minor points regarding the protection of wild plants and flowers that might be mentioned did time permit, but legal help is really the goal at which we ought to aim. No one is wholly without influence. Let all of those who love flowers exert it to the utmost, hands joined and individually. Let us awake! Let us be up and doing! Let us get an Act passed before it is too late!

Kindly let me acknowledge my great indebtedness to Professor Boulger, editor of *Nature Notes*, whose far-reaching and deeply interesting paper on "The Preservation of Wild Plants," published in the *Journal of the Royal Horticultural Society*, December, 1905, should be read by all.

F. A. BARDSWELL.

## THE POPPY ANEMONE.

(*ANEMONE CORONARIA*.)

ONE of the joys of the Riviera in the early year is the *Anemone coronaria*. We need not describe its freedom in the sunny south, as the accompanying illustration, reproduced from a photograph taken by Miss Willmott in Mr. Hanbury's interesting garden, is sufficient explanation. The St. Brigid group is a selection, and forms of this beautiful flower are the Nice, Caen, Cardinal's Hat, and so forth, a brilliant variety of colouring making this *Anemone* as pleasant to see as almost any flower of the garden.

The plants are easily raised from seed sown as soon as ripe. Make the seed-bed of a fairly porous soil, and place it in an open part of the garden. The surface before sowing should be firm and level; moisten the soil before the seed is sown. It is a good plan to scrape the surface of the bed with a worn-down garden broom immediately before sowing, which should be done broadcast, the seed being then covered with a thin sprinkling of sandy soil. After this make the bed smooth, and shade it from the sun until the seedlings begin to appear, when the shading material must be removed. The bed must never be allowed to get dry until the young plants have finished their growth, or they will wither prematurely.



POPPY ANEMONES



## TREES &amp; SHRUBS.

## HARDY AZALEAS IN JUNE.

**D**URING the latter half of May and the greater part of June two of the most attractive features at Kew are the Rhododendrons, evergreen and deciduous. The Azalea garden is situated within a short distance of the eastern end of the lake on the north side of the Syon vista. It is of considerable size, and is made up of between twenty and thirty large beds, bisected by wide grass avenues and enclosing a fair-sized central lawn on which specimen Magnolias are dotted here and there. To describe the effect produced by the Azaleas is almost impossible, the variety and delicacy of the colours being unsurpassed among hardy shrubs.

Although botanically the generic name Azalea is dropped in favour of Rhododendron, it is more than probable that Azalea will always be kept up for the deciduous kinds as a horticultural name, and it certainly has the effect of drawing a distinguishing line between the two great groups. The species that have entered most largely into the composition of this race are calendulaceum from North America, flavum from the Caucasus, nudiflorum from North America, occidentale from California, and to a lesser degree viscosum from North

America, and sinense from China and Japan. Then of other hardy deciduous species of Rhododendron that are included under the popular name of Azalea we have dilatatum, a purple-flowered Japanese plant, Albrechtii and rhombicum, also purple-blossomed plants

from Japan; Rhodora from North America, the lovely pink-tinged Vaseyi from Carolina, its white variety, and a few others. It is, however, to the first named that we have to turn for the lovely garden forms such as are seen at Kew, and which are popularly termed Ghent Azaleas. From calendulaceum the brilliant reds, orange scarlets, and orange have been obtained; from flavum the yellows, from nudiflorum the pinks and whites, and from occidentale pinks and whites. Sinense forms a distinct set with larger flowers, and is more familiarly spoken of as Azalea mollis.

In addition to the beautifully-coloured flowers of these Azaleas many of them have another attractive feature in that they are very fragrant.

## CULTIVATION OF THE AZALEA.

The fact that most of those popularly known as Ghent Azaleas are very hardy makes it possible for people in most parts of the country to grow them—that is where the soil is suitable. The soil that best suits their requirements is one of a light, sweet, peaty nature, but they will thrive satisfactorily in sandy loam, or even in heavy loam, providing lime is absent or present in very small quantities only. When forming beds for Azaleas the ground must be trenched to a depth of from 1½ feet to 2 feet, and if in anywise inclined to be very wet it should be drained. If the



A BUSH AZALEA IN THE AZALEA GARDEN AT KEW.



THE NEW RACE OF IRISES IN THE NURSERY OF M. C. G. VAN TUBERGEN, JUN., HAARLEM, HOLLAND.



soil seems good, remove about 6 inches only from the bottom. After the trenching is done, make up the deficiency by a surfacing of good peat. When this has been done, fork over the top 15 inches, so that the peat and surface-soil are thoroughly mixed. This, of course, applies to loamy ground only. When thoroughly mixed, planting may be done. During the operation care must be taken to make the plants firm and not to cover the surface-roots with more than half-an-inch or so of soil, as deep planting is disastrous. A good watering will settle them in, and a top-dressing of decayed leaves will keep the moisture from evaporating too rapidly should dry weather ensue. During the first year after planting it may be necessary to give water occasionally, but artificial watering must be avoided as much as possible. During the whole of the plant's existence it is necessary to keep the surface-roots as near the top of the ground as possible, specimens with plenty of roots about the ground line always being healthier than those whose roots are deeper. Feeding with rank manure is not to be commended. It is better to give an annual light dressing of decayed leaves than manure. Very little in the way of pruning will be found necessary, but it is essential to the general health of the plants that old flower-heads are removed as soon as the flowers are over, so that strength is not expended on seed-production. Propagation can be effected by means of seeds, cuttings, layers, or grafting. For the inexperienced, layering will be found the most effective method.

W. DALLIMORE.

## THE FLOWER GARDEN.

### THE NEW ONCO-REGELIA IRISES.

#### SOIL AND POSITION.

**T**HIS class of hybrid Irises likes a good, well-enriched sandy loam without any artificial manure, though a liberal addition of old, well-decomposed cow manure may be added with advantage. The soil must be very deeply worked and carefully drained, so as to allow all superfluous water to flow away easily. This is a very important point, especially in winter, when the rhizomes are not yet fully rooted, and are apt to rot away if the water becomes stagnant in the soil. If the soil is of a heavy, stiff constitution, besides mixing a fair amount of sharp silver sand in it, each rhizome should be surrounded with some sand, as this will greatly assist in keeping them sound. Together with the cow manure that must be finely broken, one should not omit to add a few handfuls of pulverised mortar rubbish, as these Irises delight in chalky soils. They need a warm, sheltered corner of the garden where they can get the fullest amount of sunshine. This is essential in spring and early summer for ripening them off sufficiently and thus enabling them to gather strength for next year's development. A capital place for them is at the foot of a wall looking south. The rhizomes must not be covered with too much earth, as this will weaken the crowns and sometimes prevent them from forming flower-spikes. If the rhizomes are planted 2 inches deep on heavy soils and 2½ inches in light, sandy gardens, this will be quite sufficient if only the roots, which some varieties keep more or less even in the dry state, are carefully spread

out and not huddled together. These Irises always emit a set of hairy roots before winter, and it is obvious that the better these roots are spared, the safer the rhizomes in winter.

#### TIME OF PLANTING.

Planting is best done about the middle of October, and may be prolonged until the end of the month. It is not necessary to have the rhizomes in the ground before October 15, but it is fatal to defer planting until November and later, as then generally the ground becomes too cold, and thus prevents the rhizomes developing their winter roots.

#### COVERING IN WINTER.

The Onco-Regelia Irises are hardy, but as some make growth before winter, cover the beds with Fir boughs to keep off cutting winds, and also, on sandy soils, to prevent the sand from being blown away.

#### CULTURE AFTER FLOWERING.

Unlike most rhizomatous Irises, the leaves of this group show signs of decay in summer, but as in our damp climate the entire ripening off is impossible, the rhizomes must be yearly lifted and divided, and kept dry and warm till planting time. For rhizomes that were



IRIS HEKATE (REDUCED). ONE OF THE VARIETIES OF THE BEAUTIFUL NEW RACE OF ONCO-REGELIA IRISES.

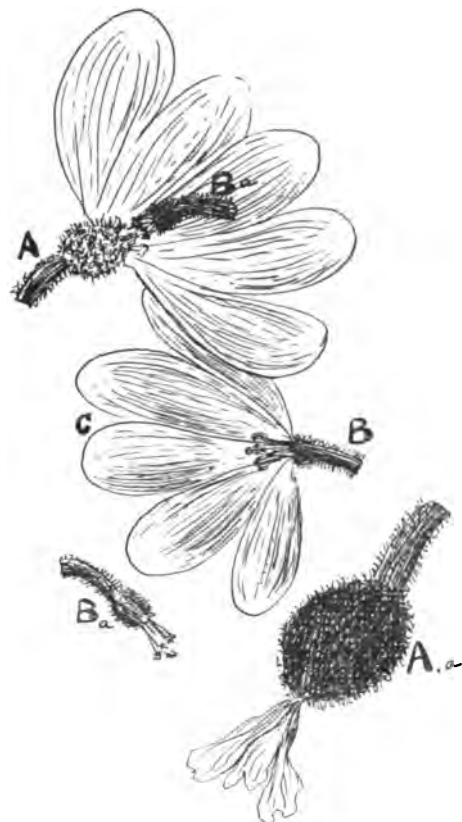
planted at the proper period (about the latter part of September) the middle of July is a suitable time for harvesting.

C. G. VAN TUBERGEN, JUN.  
Haarlem, Holland.

## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**SETTING MELONS.**—The work of setting Melons often proves a difficult task to beginners, more especially if they have never seen the operation performed. Bees, ants, and other insects accomplish this work by transferring the pollen of one plant to the flower of another, and through their agency many hybrids



MALE AND FEMALE FLOWERS OF MELON,  
SHOWING HOW TO "SET" THE FRUITS.

result. The ideal conditions which should obtain in a Melon house when the fruits are set are a fairly dry atmosphere, dry pollen, and sunshine. Several blooms should be open and set at the same time on each plant. If one fruit commences to swell before another, it generally does so at the expense of others. The sketches show how setting should be done: A is a pistillate (female) bloom with half the flower petals stripped off, for the purpose solely of more clearly showing how the operation is done; B is a staminate (male) bloom, similarly treated, but all the remaining flower petals, c, must be removed, then it will present the appearance as shown at B a. Then insert the staminate flower, B a, or stigma in the centre of the pistillate bloom, A. When set and duly swelling, the embryo fruit will appear as shown in the sketch A a, the flower petals still adhering, but being shrivelled up.—AVON.

**About Hardy Ferns.**—To grow Ferns satisfactorily in a garden we must recollect what Nature has taught us, and choose a spot sheltered from sun and wind as much as possible, but otherwise with plenty of daylight; and we must also indulge them with a soil containing plenty of leaf-mould. Rocky slopes will have taught us also

that something in the rookery line will help, but in making a rookery it should never be forgotten that the Ferns are the main ornament of it, and hence that the rocks, whether real or artificial, should not be mixed up with shells and corals, or similar things which are entirely out of place. To start a rookery, say, under a north wall, the ground should be well forked up, and as a foundation any broken brick rubbish may well be mixed with the subsoil to drain it and keep it sweet; if the soil generally be good garden soil, and not clayey, it will do as it is, though an addition of leaf-mould is always advantageous. The bed should be made nearly 1 foot higher than is needed, as it is sure to settle, and the rocks or burs should be well bedded in irregularly, leaving spaces between for planting the Ferns subsequently. When finished, water well and let it settle; then plant the Ferns singly close under the edges of the rocks, so that their crowns are just level with the soil, but not covered. Water them well in, and the work is done. Care must be used in planting so that small growers are not hidden by larger ones when growth sets in. Finally, having made a pretty rookery in a good place, do not do as nearly everybody does—forget all about the beautiful varieties we have mentioned and crowd up your space with common Ferns, which those who know regard as weeds.

**Ferns in the House.**—Many of our finest varieties will form lovely specimens in well-lighted north or shaded windows if grown in pots, kept properly watered, and, above all things, always retained in one position. Ferns, like all other plants, will grow towards the light, and arrange their fronds to catch as much of it as they can, the result being a very graceful one; yet innumerable people, ladies especially, who grow Ferns indoors in windows will keep turning them round to face the company, i.e., turn their backs to the light. Now, as many Ferns are practically developing new fronds all through the growing season, and these fronds as they unroll bend towards the light, stiffening as they develop, a Fern thus twisted and turned about becomes in itself twisted and out of shape, and all its native elegance is spoiled. The best plan is to mark the pot itself, and keep that mark always either to back or front as the case may be. Much as Ferns like water, it is not well to let them stand in saucers full of it. A good plan is to use a large saucer and insert a smaller one inside it in which the pot stands. The large saucer can then be kept filled and will supply the pot, not by soakage, but by percolation through the smaller saucer, a much healthier way. The more light, but not sun, the sturdier the Fern; no Fern will thrive in a dark corner far away from the window, and gas fumes are poison to the hardiest.

**Ferns in Wardian Cases.**—Practically the only satisfactory Ferns for Wardian cases are the Filices; all others are apt to get drawn out to outgrow the limited space. Our native Filmy Ferns (*Hymenophyllum tunbridgense* and *Wilsonii*) and the lovely Bristle Fern (*Trichomanes radicans*), of which there are several beautiful varieties, do well in a perfectly close case if pegged down on pieces of limestone or sandstone embedded in an open peaty compost. After pegging down, this should be covered with a handful or so of sandy compost, and then watered overhead so heavily that this mulching is washed well into them, thus establishing them firmly, but not burying them. This done, they may be left untouched for months together, save a watering when needed. That beautiful New Zealand Fern (*Todea superba*) makes a grand central plant

if the case be large, and it is as hardy as grass. The Ferns must never see the sun, and drought is absolutely fatal. They are the children of caves and hollows by, and even under, waterfalls, and shrivel at once if exposed to dry air or sunshine. The need for strong light is consequently less, and hence they may be grown in duskier situations than Ferns that love the air. Judiciously aired and well lighted, the Wardian case may accommodate a small rookery containing some of our small-growing Spleenworts, such as *Asplenium Trichomanes* and its varieties, which constitute a pretty group, and will thrive provided the fronds are not wetted and the plants be carefully installed in rocky chinks, limestone for preference, soil sandy leaf-mould. Pretty, temporary arrangements may also be made by filling the bottom of the case with fresh Cocoanut fibre, and bedding 2½-inch pots therein containing small growing specimens of Hart's-tongues, Spleenworts, &c., which can easily be shifted when growth renders it necessary. Good drainage is essential; water-logged soil breeds a sourness fatal to everything.

**Sauromatum guttatum.**—The enclosed photograph may interest your readers. Three years ago I purchased a corm of the above. The first year it threw a good flower-spike, the corm diminishing accordingly; after it was over I potted and kept it damp, but found it did not swell at all, with the result that the flower-spike the following year was a failure. So I planted it in the garden in June, and on raising it in September the corm had assumed greater proportions than when purchased, with the result



SAUROMATUM GUTTATUM.



this year as depicted. The plant needs no nourishment of any kind, and if placed on a window-sill will flower successfully. When the flower-spike is withered, the corm should be planted in a damp spot in the garden, leaves will develop and turn brown towards the end of the summer. The plant then should be raised, having accumulated the necessary nourishment to enable it to flower the following year.—F. G. LAKE.

## THE BEGINNER'S FRUIT GARDEN.

*Vines in the Greenhouse.*—There are thousands of small greenhouses in the suburbs of towns and scattered about the country where Vines are, or may be planted, and fairly good Grapes grown. In some places, where the drainage is suitable and the soil fairly good, not much expense need be incurred in border-making. If the soil is bad and the drainage imperfect, make the border 1 foot or more above the present ground level. This may be done by carting in two or three loads of good loam. Get a bag or two of bone-meal and some old plaster or mortar, and a couple of bushels of wood ashes or crushed charcoal, and blend the whole together. Any further stimulants required (and Vines will use up a good deal of nourishment) may be given in the shape of liquid manure and rich top-dressing. The top-dressings will keep the roots near the surface, where they can easily be fed. It will be better to have the Vines planted in a narrow border inside, and then, if the ground wall of the house is built on arches, the roots will soon find their way out into the border outside. The outside border need not be all made at first. If it is 3 feet wide, this will be enough for a small house, and can be extended when necessary. If the border is made above the natural level, there will not be much trouble with drainage.

*Planting.*—Plant the Vines in March, and, if turned out of pots open out the roots and spread them out within 6 inches of the surface, and make reasonably firm. It is possible when we can wait to furnish the house by planting cuttings about 1 foot or so long, leaving one eye or bud exposed level with the surface, but this is not usual, and most people buy Vines and plant them out of pots. Although March has been mentioned as the best month to plant, they may be planted any time during summer out of pots. If the sap is moving, let the buds break, and rub them off, except the bottom one. When the leaves unfold, the canes can be cut down to the point where the shoot has started. This shoot will be trained up, and encouraged to make all the growth it will, and that will constitute the first year's work. If all things go well, there should be a short, jointed cane as thick as one's finger. When the leaves fall, cut down to within three eyes or buds of the bottom wire. When, the next year, these eyes break, the upper growth should be trained up to form the main rod; the two lower ones, if reasonably strong, may be permitted to carry one bunch each. The growth the second year should be strong. The main rod which ascends the house, when within a foot or so of the end of the rafter, should be stopped, and the soft laterals—i.e., the shoots which spring out from the axils of the leaves—should be pinched to one leaf, as it is better to let the main leaves do the elaborating work. The third year there ought to be a good crop of luscious Grapes. It will be better not to leave the main rod too long the third year—8 feet in length will produce a lot of Grapes. In order to make the eyes break regularly, the canes should be bent back, to check the flow of sap to the extremities, so that all the eyes may break into growth, and if the wood has been well ripened, every shoot will show one or more bunches of fruit. When a foot or so long, the shoots should be gradually drawn to the wires, and tied at something like equal distances apart. When two leaves can be seen beyond the bunch, pinch out the terminal bud. The usual distance allowed between Vines is from 3 feet to 4 feet. If 4 feet is

allowed, sometimes a second rod or cane is taken up from each Vine in the centre of the light, but usually when plants are grown beneath the Vines it is better to be contented with the Vines 4 feet apart, and allow a little more extension to the laterals.

*The Sub-Laterals* should be dealt with promptly. If permitted to extend, and then removed, a check may be given that will be injurious. The best way of managing sub-laterals which spring from the axils of the leaves is to rub off all below the bunches and stop all above to one leaf, and permit no further progress. This is simple, and easily understood. Let nothing interfere with the work of the main leaves.

*Thinning the Berries.*—This should be done when the berries are about the size of Sweet Pea seeds, as by that time the best berries will have obtained a lead, and these should (in the case of Black Hamburgs, which are the best Grapes for the amateur to grow) have at least half the berries cut out. Sometimes two-thirds are taken out; but in dealing with Vines of which we know nothing it is better to go over a second time and relieve the light places by cutting out a berry here and there than have loose, flabby bunches. The scissors should be carefully handled so as not to cut, ever so slightly, any berries left in. Neither should the berries be touched or rubbed with a hot hand while the work is in progress.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**B**EDDING OUT.—Most plants are now planted out, and the tenderest, having been carefully hardened, may now be planted. Begonia tubers started into growth in March, and, subsequently planted in cold frames, are large plants, and may be transferred to the beds, which should be well prepared with plenty of well-rotted manure and leaf-mould thoroughly mixed. If these can be favoured with a moist position they will do best, or, if the position is dry, they must be frequently supplied with water, and always kept moist at the roots. Watering overhead at any time of the day, even in the hottest sun, will not injure them in the least, but be greatly beneficial to them, preventing bud-dropping, which frequently happens during very hot, dry weather. Seedlings of Begonias raised early in the year, having had more warmth to keep them growing, should be left till the last, as if these receive a check at this time they rarely recover during the season, whereas, if carefully managed, seedlings often surpass the old plants. Surfacing the beds with Coconut fibre is a good plan, it prevents evaporation.

**DAHLIAS** may now be transferred to their flowering quarters. The soil for these can scarcely be made too rich. They enjoy full sunshine, but must be liberally supplied with water. As planting proceeds, place a stake about 3 feet long near each plant to give support, as they are very liable to be broken off by wind. Two or three other stakes will be required as growth proceeds. It is considered safe at this date to plant out any tender plants used for bedding, but it is advisable to have protecting material at hand.

**WATERING** now needs attention in the flower garden. Surface sprinkling, when the soil is parched beneath, does no good; whenever plants require water, sufficient should be given to soak the soil; moistening the foliage in the evenings of hot days is beneficial. Water in the evening if possible. Staking is very important work. Avoid as far as possible staking plants that will really do without it.

**CARNATIONS**, as the flower-stems advance, need support. The wire-coiled stakes are now in

general use for this purpose, and answer admirably. They can also be used to support many kinds of slender-growing flowers. Stir the surface of the Carnation beds with the hoe, as this will encourage the production of strong shoots. The thinning out of the flower-buds of border Carnations is not recommended, quantity, rather than quality is looked for on the plants used for bedding.

G. D. DAVISON.  
Westwick Gardens, Norwich.

### ORCHIDS.

**ODONTOGLOSSUM CITROSUM.**—As soon as this beautiful Mexican species has finished flowering it should be given attention at the root. If the compost in which they are growing is in good condition the plants will need only resurfacing to encourage the new roots which appear at the base of the young growth. The flowers are borne on a pendulous spike, and for that reason it is advisable to grow them suspended from the roof, and shallow pans are suitable receptacles in which to grow them. These should be drained to about one-third their depth, and the plants should be potted firmly in a mixture of fibrous peat and sphagnum moss, with some small crock and coarse sand added. When repotting lay the roots as naturally as possible in the new receptacle, and work the compost between them; it is a bad plan to bunch the roots of any Orchids. For a few weeks little water will be needed at the root, but the surface compost should be sprayed over every day in order to induce the moss to grow. *O. citrosum* grows freely in the intermediate house, and during the growing season it requires plenty of fresh air.

**ODONTOGLOSSUM INSLEYI** is also a native of Mexico; this also does well in the intermediate house. Plants that need repotting this season should be done as soon as the new roots appear at the base of the young growths. The pots should be drained to one-half their depth, and the compost may consist of two parts fibrous peat to one of chopped sphagnum, and one-fifth partially-decayed oak leaves. Mix the whole well together, and add a quantity of small crock and sand. Remove all the old compost, and out away any dead roots from the plant. Place a layer of moss over the drainage, and work the compost between and about the roots to within 1 inch of the rim of the pot, then surface with a layer of chopped sphagnum. The base of the young growths should be on the surface. They require much the same treatment as advised above.

**ODONTOGLOSSUM GRANDE** resembles *O. insleyi* in growth, and requires exactly the same treatment. It is not advisable to disturb any of them unless the compost has become decayed, but the surface compost should be kept healthy, and it is necessary to prick fresh moss on the surface each season.

W. H. PAGE.  
Chardwar, Bourton-on-the-Water, Gloucester.

### KITCHEN GARDEN.

**KIDNEY BEANS.**—Make another sowing of Runner Beans to ensure a plentiful supply of this useful vegetable. Allow enough room between the rows, for if too close together the lower part is useless. The rows should be not less than 9 feet apart. A low growing crop can be cultivated between the rows of Beans, no ground being wasted. The Runner Bean can be used as a climbing decorative plant, and is very useful to cover a trellis, or anything of a like nature, the flowers being attractive to the eye, and the Beans, when formed, come in for use. Attend to staking—as recommended in a previous calendar—at the time of sowing, or before the Beans begin to run. Sow more Dwarf Beans, and allow plenty of space between the rows according to the variety grown, large varieties requiring at least 2 feet between the rows, and also plenty of room in the row. It is not often that one is able to pick Dwarf Beans out of doors before July, but Beans



in frames and pits should now be yielding abundance, and care should be taken in gathering the crop, for the swelling of seeds in neglected pods will soon cause the Beans to cease bearing. They should be gone over every day, gathering those of a proper size, whether they are wanted for immediate consumption or not, tie in bundles of fifty, and stand them in a cool shed with the stems in a shallow saucer of clean water, which should be changed every day.

**PARSLEY AND CHERVIL.**—Partial failures with Parsley are sometimes inevitable, no matter how much one strives against it. Where it is doing badly, and is patchy in the seed-row, transplant carefully from places where it is thicker. Choose a showery day, if possible, for the operation, or well water at the time of transplanting and until the plants get established. Make fresh sowings of Chervil in a shady place. This herb will soon run to seed if sown in a sunny and dry situation.

**BEET.**—The main crop of Beet will require thinning, which must be done carefully, being guided by the variety as to the space between the roots. For medium sized Beet 7 inches to 8 inches apart is a fair distance. Turnip-rooted Beet for early use can be allowed to remain a little thicker in the rows than the crop for storing. Every effort should be made to keep the bed perfectly free from weeds—especially weeds that seed quickly—while the crop is in a young state. It is almost impossible to clean the bed properly later in the summer without damaging the crop. Salsify, Scorzoneria, Chicory, and Dandelion should be thinned by degrees until the roots are from 7 inches to 9 inches apart in the row.

**GENERAL REMARKS.**—Keep the hoe well at work in all parts of the garden, for if weeds get the upper hand at this season there will be trouble for the remainder of the year, and very often into the next one. Weeds are often found thriving in a marvellous manner in the Pea rows. They must be carefully pulled out, or damage will be done to the Peas. Cut down all flower stems as they appear in Rhubarb, Horseradish, and Sorrel, and break out any that may be appearing among the Seekale. Keep the ground occupied by spring Cabbages clean; in due time there will be formed many useful little heads on the stems after all the first heads are cut, these are very tender, and, where there is great demand for Cabbages, will be found to come in and be of much service.

J. JACQUES.

Bryanston Gardens, Blandford.

## THE KITCHEN GARDEN.

### HARICOT BEANS.

**I**N reply to "C. S. S. J." (Edinburgh) respecting his enquiry about Haricot Beans, I should like to quote my experience. By request of a seed merchant I tried some Haricot Beans which they had on hand, to see if at any time they could be used and sold for Runner Beans. I did not give them any special treatment, simply allowing them to climb over a Privet hedge. That the result was satisfactory may be gathered from the fact that from these Beans I had quite a quantity of good cooking Beans, and to all appearance and taste they were the same as Kidney Beans, even when cooked. I took a sample basket down to our shop, and they gave every satisfaction. Moreover, they cropped well.

Worcester.

R. J. T.

### RHUBARB DAW'S CHAMPION.

THIS is one of the finest varieties I have seen. When at Messrs. Bath's Wisbech nurseries I noted a large quantity growing beside other

sorts, and the distinction was very marked. It was much earlier, and had very stout stalks of a rich red colour. I am told it is superior in flavour.

Rhubarb being so extensively in demand it is surprising that more attention has not been given to its improvement. It is quite evident that it is amenable to the specialists' attentions, but it may take rather a long time to get up a stock. I believe it took the raiser of the variety Hobday's Giant, which was shown several times last year, nine years to get up a sufficient stock to put it into commerce.

### A TRAILING CUSTARD MARROW.

THE majority of the Custard Marrows do not trail, and are therefore of bush form. Though the latter for small gardens or frames are the most useful, the newer trailing varieties are more prolific and of excellent quality. For the past few seasons our best Custard Marrow has been Sutton's Improved, and this after a trial of every Custard or Bush Marrow we could procure. We require the Custard Marrow every day for as long a season as possible, and it is important to get a free cropper.

The Bush fails at times; I mean the crop is neither so regular nor so heavy as that from the trailing sorts, and it is an easy matter to keep the latter in bounds by stopping the shoots and thinning out. Many who do not grow the Custard Marrows would find that they are delicious if once given a fair trial. When out in a young state they are far better than the ordinary Marrow. Many do not cut these vegetables until growth is far advanced; they are then poor and flavourless. Early in May—indeed, all through the month—is a good time to sow the Custard. They do not require manure. If planted on a warm border in June, and well attended to in the way of food and moisture, they give a good return.

G. WYTHES.

### SUTTON'S FORCING LETTUCE.

THIS is an excellent Lettuce, easily grown, and sure to be appreciated. It is non-heating, and can be had in excellent condition throughout the winter providing successive sowings are made. The leaves form quickly, are very tender and crisp, and may be used blanched or in their natural condition. A good plan is to sow in boxes using a light, rich soil. Place the seed-box near the glass in a temperature of about 55°.

When the young plants are of a convenient size to handle prick them out either in boxes or on a slight hot-bed. A distance of 3 inches from plant to plant is sufficient. This Lettuce is grown by some all the year round, its qualities being such as to cause a continual demand. From a sowing made as advised above on February 9 fine, crisp, and fully-developed leaves were out on March 31, seven weeks from time of sowing.

Watford.

C. RUSE.

### SUTTON'S EASTERTIDE BROCCOLI.

THIS Broccoli is most useful; it comes into use at a time when good vegetables are scarce. A fine lot has been grown from seed sown on April 17 of last year. The plants were pricked out from the seed-bed before becoming drawn and weak. They were finally planted on land from which Strawberries had been cleared, after their third fruiting season. All weeds and rubbish were cleared from the land, and after the first good rain the Broccoli was planted. A suitable distance to allow between the plants is 2½ feet. The advantage of planting on firm, consolidated land is that the plants make stronger and more sturdy growth than when planted on land recently dug or trenched. They are, therefore, better able to withstand the winter weather.

Watford.

C. RUSE.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

### FLOWER GARDEN.

**REMAKING LAWN (Closely).**—We do not think you would gain much by sowing grass seed in a month's time. Grass seed sown in the middle of summer often fails to germinate satisfactorily, owing to the hot dry weather and the difficulty of keeping the seed-bed moist during that time. By sowing in September, when the weather is cooler, you would obtain just as good a lawn by this time next year, and probably a better one, than by sowing during the hot summer weather. You might add soot to the finely-sifted soil for covering the seeds if you wish, but it is not at all necessary. You should delay giving the other artificial manure you mention until the lawn has become established, otherwise you will probably do a great deal more harm than good. You could not have a better time for sowing than the end of August or early September.

**GROWING SPANISH IRISES (B., Weybridge).**—Spanish Irises need no special treatment; they will grow quite well in ordinary border soil which is fairly sunny, and will flower in June. We should advise you to sow at once seeds of some annual round about them, such as Clarkia or Godetia. These would give you flowers after the Irises were over. Yes, if you obtained such Lilies as croceum, umbellatum, tigrinum, and speciosum, all easily grown and free flowering, they would doubtless give you a good display of bloom next year. Plant in September or early October. You would doubtless get the Wall-flower you mention from any of the seedsmen who are now advertising seeds of these in THE GARDEN. You may sow Forget-me-not, Polyanthus, and Aubrietia in shallow boxes at the end of June. You could plant nothing better than the double-flowered variety of Arabis albidia as a groundwork for your Hyacinths. All the plants you name will flower together with the exception of Narcissus Cynosure, which would be over before the Polyanthus and Tulips.

**PLANTING PRIMROSES, &c. (R. W. Ascroft).**—1. Primroses may be planted any time now if they are well watered, but of course the best time is in the autumn or spring. The usual price per 1,000 may be anything between £2 and £3 from nurserymen. 2. It would be advisable to consult a local nurseryman as to the price of trees, and if an immediate effect is to be produced they ought to be as large as they can be procured, although large ones cost more. The rate of growth varies, and depends on soil and situation, and they ought not to require manure if the soil is good. The holes to receive them should be made from 2 feet to 3 feet square, and deep according to size of tree planted. 3. The best weed killer for use on lawns is Climax Lawn Sand. It destroys Daisies, Plantains, and Dandelions, and may be applied any time, but the early spring months are the best. All directions are sent with the Lawn Sand. 5. Angora Gourds are usually used for decorative purposes only, and are of no edible value. 8. It would not be advisable to use too much of this water on young Fir trees, as it

would probably prove injurious in time. Older trees would stand more.

**WORMS IN LAWN** (*Leucostrion*).—To make lime-water for the purpose of clearing worms from your lawn, fill a barrel with water, and add as much lime as the water will absorb. Stir the mixture well, and afterwards allow the lime to settle. Generally speaking, a peck of fresh lime is enough to add to forty gallons of water. By watering the lawn with this fluid by means of a rose watering can, the worms will be brought out from their burrows in large numbers, and the grass will also benefit by the application.

**AMPELOPIS VEITCHII** (*R. W. Ascroft*).—If you take care to water well the plants of *Ampelopsis* in pots the day before planting them, so as to make sure that the soil is moistened through at planting time, few, if any, leaves will be lost if the plants are carefully taken out of the pots and put out so as to damage the roots as little as possible. If you were to take plants up from the open ground and replant them, thus damaging the roots, they would doubtless lose a number of leaves, but plants in pots treated properly ought not to do so. You must take care that the roots do not suffer from want of water after planting.

**FLOWERS ROUND FRUIT TREES** (*Closely*).—If you wish to grow annuals round about fruit trees—a practice, however, which we do not recommend, as it prevents keeping the surface soil loose throughout the summer months by means of hoeing—you might sow such as Candytuft, Mignonette, Shirley Poppies, Collinsia, *Nigella*, Virginian Stock, and *Larkspur*. You could hardly expect these to be very satisfactory, because, naturally, they would be shaded, and would probably become drawn and weakly. If such were the case, they would not flower very satisfactorily. However, there would not be much harm in your trying them.

## TREES AND SHRUBS.

**EVERGREENS SUITABLE FOR PLANTING OUTSIDE** (*Stella*).— *Aucubas* of sorts (if male and female are planted in close proximity, these last will set berries), *Berberis Aquifolium*, *B. Darwini*, *B. stenophylla*, *Buxus sempervirens* (*Box*) and varieties, *Cerasus Lauro-cerasus rotundifolia* (one of the best *Laurels*), *Elmagnus* of sorts (some of them prettily variegated), *Euonymus japonica* and its variegated varieties, *Hollies* of sorts, *Ligustrum ovalifolium variegatum* (a pretty golden *Privet*, almost evergreen), *Olearia Haastii*, *Osmanthus ilicifolius*, and *Viburnum Tinus*.

**BRAKEN UNDER TREES** (*A. M. C.*).—We very much doubt if you will be able to get Bracken to grow in the situation you mention, as ground that grows *Colt's-foot* naturally is hardly suitable for Bracken. You might, however, try it on the higher part of the slope, but we should advise you to try it on a small scale at first, and extend it afterwards if you found it answer. It is too late this season to procure plants, but you could clear a few small patches of ground and sow seed, which, however, you may have a little difficulty in procuring. In the autumn you could get some Bracken roots in the shape of small, square turves, and plant them about 18 inches apart, and 1 inch or 2 inches deeper than they were before. Bracken is a difficult subject to naturalise.

**DOUBLE FURZE FROM CUTTINGS** (*F. F. F.*).—The double-flowered Furze (*Ulex europæa flore-pleno*) is propagated from cuttings, which should be taken towards the latter part of August and given the protection of a frame. When required in quantity, some moderately fine sandy soil should be placed in the bottom of the frame to a depth of about 6 inches and made firm. Into this the cuttings may be dibbled row by row till the frame is filled. After this a good watering through a ree should be given in order to settle everything in its place. From then they must be kept close, giving a little air at times in order to dry up any superabundant moisture. The lights must be shaded from direct sunshine till the sun loses power. If only a limited number of cuttings is needed, they may be put into pots and placed in a frame, or dibbled in a sheltered border and covered with a hand-light. A length of from 4 inches to 6 inches is a very suitable one for the cuttings, which should be severed with a keen knife, and the bottom leaves removed for the purpose of insertion. For cutting off the leaves a pair of sharp scissors is very handy.

**DECIDUOUS SHRUBS** (*Stella*).—As your second question refers to evergreens for outside, we conclude this is intended to apply to deciduous subjects. A good selection, in which, however, we have exceeded the dozen, is as follows. The colour of the flowers and season of blooming are herewith given: *Cytisus albus* (*White Broom*), May; *C. scoparius*, yellow, May; *C. scoparius Andreanus*, crimson and yellow, May; *Dentzia crenata flore-pleno*, white, June; *Hamamelis mollis*, yellow, January to March; *Hydrangea paniculata grandiflora*, creamy white, August; *Kerria japonica flore-pleno*, golden, April and May; *Magnolia stellata*, white, April; *Philadelphus Lemoinei erectus*, white, midsummer; *P. Lemoinei* (*Boule d'Argent*), double white, midsummer; *Ribes aureum* (*Golden Currant*), yellow, April and May; *R. sanguineum* (*flowering Currant*), rosy red, April; *Spiræa callosa*, deep rose, midsummer; *S. Douglasii*, pink, summer; *Viburnum plicatum*, white, May; *Weigela Abel Carrère*, pink, May; *W. candida*, white, May; and *W. Eva Rathke*, crimson, May, and throughout the greater part of the summer.

**YEW BLEEDING** (*E. M. G.*).—We should advise searing over the cut surface with a heated iron, using it sufficiently hot just to char the surface, then give a good coating of Stockholm tar, and in this way we think you will be successful in stopping the bleeding.

**PLANTING EVERGREENS** (*Closely*).—Unless it is particularly important that you should plant the evergreens now, especially as they have to come from some distance by rail, we should certainly advise you to defer the work until early autumn. You might, by very careful planting and paying particular attention to the trees after they are planted in respect to keeping them well supplied with water at the roots, syringing them in the evening, &c., carry out the transplanting successfully. There would, however, be some risk of losses, a risk which would be absent were the work carried out in the autumn.

**THE PEARL BUSH** (*J. Fetherstonhaugh*).—Though *Exochorda grandiflora* is quite hardy, it as a rule flowers more freely when growing against a wall than as a bush in the open ground. The chief factor in the production of blossoms is plenty of sunshine during the latter part of the summer and in early autumn, so that a thorough ripening of the wood is ensured. As your plant has been but two years in its present position, and as one might reasonably assume it was comparatively small when placed there, no time has up to now been lost, and another year may give very much more satisfactory results. *Eriobotrya japonica* is hardy in the west of England, and in the neighbourhood of London, if trained to a south wall, it is as a rule but little injured by the winter; indeed, such seasons as we have experienced of late have had no effect upon it.

## ROSE GARDEN.

**ROSES PRUNED** (*Perplexed*).—Yes; your Roses will certainly benefit later on by the severe pruning, and you ought to get some flowers this summer. Your friend may get more flowers this season by having pruned his newly-planted Roses very lightly, but other details of cultivation being equal your plants will make stronger and better growth, and therefore will lay the foundation of good plants. Not to prune newly-planted Roses is a mistake; as we told you before, you get fewer flowers the first season, but then you are forming a better plant, and one that will live longer and give more satisfaction later on than if it had not been pruned. Do not give them any fertiliser yet, keep the soil loose by means of a hoe or hand-fork. It has been a very bad spring for plant growth, and with better weather conditions your Roses ought quickly to improve.

**ROSE BORDER AND CLIMBING ROSES NOT FLOWERING** (*J. Robertson*).—We think you would find nothing more suitable for planting along with your dwarf Roses than Rosemary and Lavender. These plants with their cool grey foliage associate most pleasingly with the Roses. If you preferred them, you might plant white or cream-coloured *Violas*. We cannot understand why your climbing Roses planted three years ago have not yet flowered; they should have been out to within about 6 inches of the ground in the early spring after planting, but in succeeding years the long shoots which should have been produced ought to have been left almost their full length. As they have not flowered, we presume they have made poor growth. Your best plan will be to wait and see if they flower, and they ought to be showing buds now. After flowering, cut down

to within, say, about 6 inches of the base two or three of the shoots. This will cause strong growths to be produced, which ought to flower next year. If they show no signs of flowering in a short time, pursue the same practice. These climbing Roses make shoots one year which flower the next. Every year after they have flowered it is advisable to cut down at least one of the shoots, so as to encourage the production of others from the base of the plant.

**SHOOTS DAMAGED** (*G. C.*).—From the appearance of the shoots of Rose and Apple which you sent, it is evident that they have been damaged by the frost through not being properly matured. The Rose shoot also looks as though it might have been damaged with a blunt knife when pruning. It is most important that the knife should be quite sharp when used at pruning time; otherwise it is liable to cause the wood to die back. Green, immature shoots on both Apple and Rose trees are of no value, for they will not bear good flowers and fruits, and they are always liable to be damaged by frost in early spring, as yours have been. The reason of their not ripening may be due to gross growth made in too rich a soil, and partly to a sunless autumn. You did quite right to protect the Roses with Bracken during the winter, although even this would not prevent unripened shoots from being damaged.

**CLIMBING LA FRANCE** (*Ernest Broad*).—We know nothing whatever of the Rose you name. Are you sure you have the correct spelling? The Climbing La France growing upon a standard should be pruned back to about 6 inches from the bud if this is its first season after planting. Subsequent pruning should be very moderate. When it makes the fairly long growths, these should be bent over somewhat like an umbrella, and they will then blossom freely.

**WHITE MARÉCHAL NIÉL** (*M.*).—There is a Rose bearing this name, but it is not a pure white flower; there is a decided distinction between this variety and the true golden form. Perhaps the nearest approach to a white *Maréchal Niel* in tint is the Rose Belle Lyonnaise. *Niphotos* is certainly not a variety of *Maréchal Niel*. How it originated, and from what variety, is a mystery, but it was introduced as far back as 1844, and *Maréchal Niel* in 1864. Unquestionably *Niphotos* is still our best pure white indoor Rose.

**CREeping ROSES** (*Weybridge*).—If you planted creeping Roses, by which you probably mean varieties of *Wichuraiana*, last spring, cutting them back to within 6 inches or 9 inches of their base, long shoots would be produced during this summer that would flower next year. It is, however, too late now to put in plants taken up from the open ground. If you have not the Roses already your only plan is to buy plants in pots, planting them out very carefully, they would then receive no check, and would flower next year just as well as if they had been planted in early spring in the open ground.

**ROSE GLOIRE DE DIJON** (*Perplexed*).—You would have done better to have turned the plant out of the pot and planted it in a well-prepared border at the foot of the wall against which you wish to train it. However, you had better leave it alone now, as you want some flowers this summer, the long growths which the plants have ought to give good flowers very shortly. It is not necessary to prune back climbing Roses every year, but unless the plant naturally sends up at least one good shoot from somewhere near the base it is advisable to cut back one of its shoots so as to induce it to do this. The only way to keep climbing Roses vigorous and free flowering is to encourage them to produce strong young shoots which will flower the year after. Do not prune your *Gloire de Dijon* at all this year; wait and see how it starts into growth next spring; it may then be advisable to shorten back one of the growths.

## THE GREENHOUSE.

**VARIOUS PLANTS** (*Musk, Swaffham*).—*Gomphocarpus*.—The best-known species of this is *G. fruticosus*, a rather slender-growing greenhouse shrub, with small white flowers, which are succeeded by pretty silky seeds, a feature common to the order (*Asclepiades*) to which it belongs. It will grow in ordinary soil in a greenhouse. *Melhamia*.—Though several species are known to botanists, few are in cultivation. *M. erythroxylon* is a handsome shrub or small tree native of St. Helena. The flowers are at first pure white, changing the second day to pink, and finally to a brownish red. It will thrive in a warm greenhouse. *Ornithogalum thyrsoides*.—A bulbous plant native of South Africa that flowers usually in the spring. It needs the protection of a greenhouse. After flowering the plants should have a light position and be watered regularly as

before till the leaves show signs of going to rest, when the water supply must be diminished, and finally discontinued altogether. After being kept dry for about six weeks, the bulbs must be shaken clear of the old soil and repotted in some loam, well-decayed manure, and sand. Little water must at first be given, to be increased as the plants grow. The flowers, which vary from white to yellow, are borne on a stem about 18 inches high.

**FRANCISEAS (A. W.).**—Franciseas are all natives of tropical America, and in this country need the temperature of a stove house. A minimum winter temperature of at least 50° is essential to their well-doing, and this, of course, is quite impossible with Vines in the same structure.

### FRUIT GARDEN.

**APPLE LEAVES CRINKLED (Northerner).**—The Apple leaves which you enclose do not seem to be suffering from anything more serious than the effects of cold winds and frost. The young leaves of fruit trees are very tender, and the cold winds and occasional frosts which we have lately experienced would naturally cripple them to a certain extent. We could find no trace of disease upon the leaves received from you. We think you will find that as the weather improves the condition of the leaves will improve also. The weather this spring has been almost unprecedented; no doubt the severe drought has also had something to do with the crinkled appearance of the leaves. The recent heavy rains, however, will have thoroughly moistened the soil, and this, together with the warm weather we ought shortly to have, will doubtless put your Apple trees all right.

**ANTS ON PEACH TREE (A. Titmuss).**—You should try and locate the nest of ants, which will probably be found somewhere at the foot of the tree near the wall. Then pour boiling water all round about the place where you find the ants to be; this is the best remedy we know for killing them. Of course you ought to have done this some time ago, before the fruits were ripe, as it is, of course, impossible to syringe the tree with hot water now the fruits are ripe. Another year you will do well to take these precautions earlier in the season. Another way of killing them is to make a paste of Paris Green (which is poison) and brown sugar, and by means of a brush drop this paste along their runs. This mixture will kill them, but it must, of course, be used with great care, so that none of it comes in contact with the fruits, for it is poison. We are afraid you will not be able to do very much this year while the fruits are still on the tree, but you might see what the boiling water will do.

**PLUM TREE BLIGHTED (Spade).**—Your Plum trees are attacked by aphid or fly, a pest which is always prevalent at this time of year, and seems especially fond of the young shoots of Plums and Cherries. You do right in pinching out the ends of those shoots which are badly attacked, providing they are not required for laying in the tree for future fruiting. But this is not the best way of getting rid of the fly. These aphides injure the leaves by drawing off the juices through their long probosces, and by covering the leaves with a sweet sticky secretion which clogs up the pores of the leaves. It is important to take measures to eradicate them as soon as they are first noticed, otherwise they become more difficult to deal with. Spray the trees with paraffin emulsion, quassia extract, Tobacco water, or one of the many insecticides advertised. Paraffin emulsion is made by dissolving one quart of soft soap in two quarts of boiling water, and stirring in while the mixture is quite hot one pint of paraffin oil. To make the combination of the oil and soap more complete it should be worked through a syringe for some five or ten minutes. If this is properly done the oil and soap will not separate. If they do the oil floats. To every pint of this emulsion add ten pints of water before using it.

**BLACK CURRANT MITE (Spade).**—Your Black Currant bushes are attacked by the mite, a most difficult pest to get rid of. The mites are so small as to be invisible without a magnifying glass, and no insecticide can reach them when they are within the buds. When a shoot has several infested buds on it cut it off and burn it. When pruning bushes that have been attacked cut them back very hard and dress the stumps with paraffin emulsion. If your bushes are badly infested the only thing to do is to dig them up root and branch and carefully burn every bit. Then purchase fresh stock free from the mite. This is one of the most troublesome pests fruit growers have to deal with, and no remedy appears to have been found yet. Meanwhile the mite is on the increase.

**ESPALEIR FRUIT TREES (R. W. Acroft).**—The best time to plant fruit trees is in the months of October and November, while the trees still have a few leaves on them. The most satisfactory fruits for espaliers are Pears and Apples. You could also train Gooseberries, Raspberries, and the Loganberry against espaliers.

**DISEASED PEAR LEAVES (F. H.).**—The Pear shoots sent are badly affected with what is commonly called the Pear blister, formed by gall mites (*Phytoptus Pyri*). In severe cases almost every leaf on a tree becomes affected, in which case it is best to pull it up and burn, as it is next to impossible to effect a cure, and there is danger of other trees being affected in the same way. A remedy may be applied to trees only slightly affected by cutting off the worst of the leaves early in spring, as soon as any indication of blister appears. We do not think that soil or culture has anything to do with the attack.

**VINES UNHEALTHY (A. Rison).**—I am afraid that I cannot give you any very definite reason for the condition of the leaves of your Vines; there are no signs of their having been attacked by any insect, and as this is not the first year that you have noticed the injuries to the leaves, it is clear that some other cause must be sought, as if they had been infested by an insect, the pest would have been sure to have spread to the Vines on either side; the same may be said of fungi; I could not detect any fungus on the leaves, so I sent them to a friend who is an expert on minute fungi, and he failed to find any. I think it is most probable that there is something wrong at the roots; at the proper time I should examine them and see if there be anything amiss with them.—G. S. S.

### KITCHEN GARDEN.

**TOMATOES DISEASED (F. J. G.).**—We should have been better able to find out the cause of failure had you sent us some of the foliage. There is no appearance of the usual Tomato disease on the stem; but the upper portion is hollow, partly dried, and shrivelled, giving one the impression that the plants had been pot-bound for too long before the final shifting or planting, and possibly at one time had suffered from the want of water. As regards the soil used, old Chrysanthemum soil is not the best for the Tomato, but when mixed with half its bulk of good fresh loam and a fair admixture of Mushroom bed manure and a liberal sprinkling of lime it forms an excellent mixture. We think that the disaster to your plants was mainly caused by the poverty of the soil. An over application of some highly-condensed artificial manure is sometimes answerable for such a collapse. There is plenty of time for another good crop before the autumn, but you must plant in fresh soil.

**SUPERPHOSPHATE OF LIME FOR ASPARAGUS (G. D. F.).**—We would at this season of the year advise superphosphate of lime, though, as you are fully aware, superphosphates from bones give a richer manure than from minerals. The former may be applied much later in the season and dissolve more quickly; the plant soon reaps the benefit. For Asparagus beds at this season use at the rate of ½ cwt. to the square rod for young plants, and water in freely in dry weather. For older plants you may use it a little more freely. We find it best to use it in smaller quantities, and give two or three dressings in the growing season.

**TOMATOES DISEASED (Major Macmahon).**—From what you say, and from the appearance of the plants, I expect your Tomatoes are attacked by what is generally known as "the sleeping disease of Tomatoes," caused by a fungus (*Fusarium Lycopersici*), a very fatal and common disease, and one for which there is no known remedy. As the growth of the fungus is first in the roots and then in the stem, it is obvious that fungicides are of no use; but the plant was so dried up and covered with powdered earth that it was impossible actually to detect the fungus. As soon as a plant is attacked it should be removed and the soil mixed with quicklime. If the plants have suffered severely all the soil should be removed, and the entire inside of the house thoroughly drenched with the following mixture: Sulphuric acid 1 pint, iron sulphate 25lb., and water 50 gallons. The mixture should be made in a wooden

vessel. Pour the acid on the iron sulphate, and then gradually add the water.—G. S. S.

**CLEANING SEEDS FROM CRESS (R. J. T.).**—In the case stated, we think that prevention is better than cure. If you will after sowing your seed press it firmly into the soil, or even cover it slightly over with fine soil and then press it, you will find that the seeds will remain in the soil and the Cress be free from the objectionable appearance you mention. We know of no special means of cleaning the seeds from the Cress.

### MISCELLANEOUS.

**HOT-WATER HEATED PIT (Wexford).**—We are surprised to find that with so many (fourteen) 2-inch hot-water pipes running beneath your pit that the heat generated when fully on is not excessive. So far from that being the case it would seem as if the heat generated was first cooled by the iron grating supporting the bed of cooco-fibre refuse, and the latter was far too thick to enable the heat generated by the pipes to reach the surface. It was, no doubt, a mistake to fix 2-inch pipes. Only four of 4-inch pipes should give far more heat than all your small ones, provided they are so fixed as to create a quick flow. If not so fixed at present a sluggish flow generates only a poor heat. We should certainly advise reducing the density of the floor of cooco-fibre from 15 inches to 6 inches. Is it not possible in any way to place a thermometer into the pipe chamber and thus test its actual heat when all the pipes are heated? In that way you could ascertain how far the heating power was at fault. As to raising the pipes your plan shows the upper row of pipes as being already close to the grating. It is the lower tier which apparently might be lifted rather higher, and if so done, do not replace them as now, immediately beneath the upper pipes, but intermediate between them. This slight raising might accelerate the water flow. We should have expected from such a heated pit as yours that a very dry heat would have been generated.

**VARIOUS QUESTIONS (Justine).**—Write to Mr. Ed. White, 7, Victoria Street, Westminster, London.

**AURICULA BENDING (S. S. M.).**—This is an ordinary border variety of Auricula, which may be raised from seed. The stem is fasciated, a rather uncommon occurrence in Auriculas. Probably the fasciation will not occur next year.

**FLOWERS IN DECEMBER (R. W. Acroft).**—During December flowers in the open are few, and the appearance of some of them is dependent upon the weather conditions. Plants usually to be found in December are the Christmas Rose, the Algerian Iris (*Iris stylosa*), Winter Jasmine (*Jasminum nudiflorum*), Winter Sweet (*Chimonanthus fragrans*), Erica carnea, and *E. medieterranea hybrida*.

**IRIS LEAF BLOTCH FUNGUS (Rebecca).**—Your Iris leaves are attacked by the Iris leaf blotch fungus (*Heterosporium gracile*), a by no means uncommon pest, which also infests *Freesia*, *Hemerocallis*, and *Antholyza*. In the early stages of the disease spraying with the following mixture checks it: Carbonate of copper 1oz., carbonate of ammonia 5oz.; mix them together and dissolve them in a quart of hot water. When these ingredients are thoroughly dissolved add sixteen gallons of water. Or dissolve 1oz. of potassium, liver of sulphur, in a quart of hot water, and add enough water to make 2½ gallons. This, though useful, is not so effective as the first mixture. Cut away and burn all the leaves which are badly attacked, handling them carefully so that any spores that may be on them shall not be disturbed if possible.—G. S. S.

**LEAVES FALLING (Query).**—If your Olive plant is in a small pot it is quite probable that your neglecting to water it for a couple of days caused the roots to suffer. Such a check as this would naturally cause some of the leaves to fall. As you do not say what size pot it is in it is difficult to advise about the watering, but, in any case, it is very bad gardening to make a practice of watering it regularly every day; you should be guided by the condition of the soil, and give water only when it appears to be slightly dry. You must not, of course, let the soil get quite dry. It is more than likely that the cause of the leaves falling is giving too much water. Syringing would not cause the leaves to fall. You seem to have pruned it too much.

**LAWN GRASS AS MANURE (G. S.).**—Grass of any description, and especially young sappy lawn grass, consists almost exclusively of nitrogen, hence it is not a valuable manure. The grass should be allowed to accumulate in a heap, especially being put together somewhat damp, then be turned and well mixed once a week, soot being strewn over it each time it is turned, and basic slag also; these mineral substances supply phosphate and potash, and thus the grass matter becomes when fully decayed quite excellent manure. The heap should be turned, and if at all dry, well damped the moment it is found to have heated. That checks fermentation and drying. So collected and employed such manure forms capital dressing for garden crops, dug in at any time of the year.



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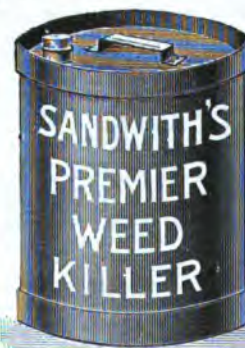
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NAMES OF PLANTS.—*R. Plomer*.—1, Double Meadow Saxifrage (*Saxifraga granulata* fl.-pl.); 2, Limnanthes Douglas; 3, Campanula glomerata dahurica.—*A. E. S.*—*Claytonia perfoliata* (a British plant).—*J. W. Driver*.—*Lonicera Caprifolium*.—*G. H. B.*—1, *Cytisus albus*; 2, *Ornithogalum umbellatum*; 3, Pearl Bush (*Exochorda grandiflora*); 4, *Prunus sinensis* fl.-pl.; 5, *Iberis sempervirens*; 6, *Centaurea montana*.—*G. H.*—1, *Viburnum Opulus* (Gaulther Rose); 2, *Dieuvillea florida*; 3, Bird Cherry (*Prunus Padus*); 4, *Lonicera punctica*; 5, *Philomela fruticosa* (Jerusalem Sage).—*Rev. G. B. Hooper*.—*Arisarum proboscideum* and *Veronica saxatilis*.—*J. Kif*.—*Callistemon salignus* and *Odontoglossum triumphans*.—*De T.*—1, *Saxifraga cespitosa*; 2, *Ornithogalum umbellatum*; 3, *Corydalis lutea*.—*J. B. M. W.*—*Prunus* (*Ceraus*) *serrulata* (double Chinese Cherry).

## SOCIETIES.

### BRITISH GARDENERS' ASSOCIATION.

THE annual general meeting of this association was held at the Essex Hall, Strand, on the 30th ult. Mr. W. H. Divers, head gardener to the Duke of Rutland, presided over an attendance of between sixty and seventy. The annual report, which indicates very satisfactory progress, was then read by the hon. secretary, Mr. J. Weather. Mr. Divers, in moving the adoption of the report, said he thought the council deserved congratulation for its work during the past year. He said the council recognised that it was most important that nothing should be done that would make the association antagonistic to the interests of employers. They took pains to ensure that all gardeners who became members of the association were thoroughly efficient, so that employers obtaining gardeners through the association could make sure of getting good men. Mr. Divers instanced the remarkable progress made by the National Union of Teachers; although for some years it had a struggle, it now has some 60,000 members, or about 75 per cent. of the teachers in the country. The British Gardeners' Association makes slow but sure progress, and Mr. Divers thought it had a great future before it.

Dr. Masters was glad to see such an excellent and practical gardener as Mr. Divers in the chair, and said that, although he presided last year, he felt that such a position should be filled by a practical gardener. While it was right that members of the association should enjoy their own liberty, it should be done without interfering with other people; this should be the spirit of the association. After some further remarks from various speakers the adoption of the report was carried unanimously.

The secretary then proceeded to read the rules which have been drawn up and published. Rule 2 provides that honorary members may be admitted. Mr. Watson asked why there should be any honorary members at all, and proposed that that portion of Rule 2 allowing for their admittance be erased. This proposition failed when put to the meeting.

There was a good deal of discussion about Rule 17, which provides that "All real and personal property of the association, under the control for the time being of any branch, shall be vested in the executive council as trustees for the whole association." Some members asked whether in the event of a branch of the association ceasing to exist, any property it might have would then revert to the head association. After many arguments for and against, the rule was allowed to stand, the executive council being empowered to deal with the matter of local property.

Clause f in Rule 23 provides for the encouragement of a higher standard of education and for greater professional efficiency. Mr. W. Pettigrew thought that head gardeners being members of the association should feel there was some call upon them to do something to help young gardeners in these matters. It was pointed out, however, by several speakers that it would be useless to alter the rule so as to make it incumbent upon head gardeners to help the young men under them, for the executive council would have no means of enforcing such a rule.

Clause i in Rule 23 provides for assisting members to obtain compensation for injuries resulting from accidents during their work, and for furnishing advice in cases of dispute between employers and employed. Mr. Watson thought the latter part of this rule dealing with the matter of advice was a very half-hearted measure. They should see that the gardener got justice instead of giving him advice.

Mr. Stocks warmly supported Mr. Watson's view, and suggested that, for instance, in the case of the wrongful dismissal of a gardener, the association should be prepared to spend its last penny on his behalf. He felt sure that this end would be justified by the increased support that would be forthcoming as the result of such determined action.

Mr. R. H. Pearson pointed out that it was absurd to talk about spending all the money they had in law costs. As they knew, the reserve fund at present was only some £270. The only way to make the association a success was to be most careful in the administration of funds at first. It was eventually resolved that the latter part of the rule be made to read: "To furnish advice and legal assistance, at the discretion of the executive, in cases of dispute or misunderstanding between employers and employed."

Rule 30 provides that honorary members may be elected. Mr. Watson moved that membership be restricted to those duly qualified as professional gardeners, according to the rule. Mr. Pearson and Mr. Pettigrew strongly opposed this alteration. Some of the best friends they had would

be lost if this alteration was carried out. When put to the meeting, Mr. Watson's amendment was defeated.

There were minor alterations in a few other rules, and afterwards the rules, as amended, were passed en bloc.

In addition to the rules, there are a number of recommendations which deal chiefly with the question of wages and hours of labour. A footnote to these recommendations emphasises the fact that they are merely recommendations and not rules. Mr. Watson said he thought these recommendations were couched in very half-hearted and indecisive language; he thought those in a former prospectus were preferable. After a good deal of plain speaking on the subject, Mr. Watson moved that the footnote, emphasising the fact that the recommendations were only recommendations, be deleted. This was carried by a small majority.

It was decided to admit apprentices as junior members, the executive council to carry out the details. Messrs. G. Tinley and J. H. Dick were appointed auditors, Mr. E. F. Hawes treasurer, and Mr. J. Weathers hon. secretary.

A hearty vote of thanks to Mr. Divers, for so ably presiding over a protracted and somewhat lively meeting, closed the proceedings.

### ROYAL HORTICULTURAL SOCIETY.

#### NEW PLANTS AT THE TEMPLE SHOW.—FLORAL COMMITTEE.

*Nephrolepis exaltata superba* and *N. exaltata elegantissima*, two very beautiful crested forms of this favorite Fern. They make most elegant plants, and will be most useful for decorative work. The former was shown by Mr. H. M. May, Upper Edmonton, and the latter by Mr. W. J. Godfrey, Exmouth, Devon. Each of these received a first-class certificate.

An award of merit was granted to each of the following: *Acerostichum decoratum*.—A handsome Fern with simple oblong leaves some 10 inches long by 3 inches wide. They are a soft green colour, and have a brown scaly margin. Shown by J. Hill and Son, Edmonton.

*Be, onis Mrs. J. B. Blackmore*.—A large double flower of perfect form and deep salmon-pink colouring. From Blackmore and Langdon, Bath.

*B. Alice*.—A double flower of lovely colouring, buff tinged with yellow, and having a well-defined margin of rose. The petal edges are crinkled. From Blackmore and Langdon.

*B. Millicent*.—This is a large double flower of clear pale salmon colour, a beautiful shade. From Blackmore and Langdon.

*Carnation Mrs. W. James*.—A large white seedling Carnation with little or no scent. To judge from the plants shown, this variety is very free, but a number of the blooms had split calyces. From W. James, Esq., Chichester.

*Daphne rupestris*.—A charming dwarf-growing plant, not more than 6 inches high, with heads of rich pink Bourdieu-like flowers. From the Craven Nursery, Clapham, Lancs.

*Clematis Lady Northcliffe*.—A large flower of the Jack-mann type, pure white, with a faint bluish tinge in the centre of the petals. From Jackman and Son, Woking.

*Gladiolus Ne Plus Ultra*.—A handsome variety with salmon-coloured flowers, marked on the lower petals with white blotches surrounded by crimson. From Wallace and Co., Colchester.

*Hippeastrum Jasper*.—A flower of perfect form, the petals broad, rounded, and regular. The colour is unusual, a deep rose or cerise rose. From Ker and Sons, Alburgh, Liverpool.

*Hippeastrum Rose Madder*.—Of good form and uncommon colour. A rather larger and more deeply coloured flower than *Hippeastrum Jasper*. From Ker and Sons, Alburgh, Liverpool.

*Rhododendron Marchioness of Tweeddale*.—A hardy variety of beautiful soft rich rose colouring, the upper petals of each flower being blotched with pale yellow. From John Waterer and Sons, Limited, Bagshot.

*Rose Hianwatha*.—A rambling Rose, bearing large clusters of strikingly beautiful single flowers. The colour is crimson with perhaps a tinge of rose and a white centre. The latter, however, is hidden for a time by the bunch of yellow stamens which adds to the beauty of the flower. This is the most handsome Rambler we have seen, the flowers last an unusually long time. It is evidently a hybrid between varieties of wichuraiana and multiflora. From William Paul and Son, Waltham Cross; Hobbies, Limited, Dereham; and Frank Cant and Co., Braiswick Nurseries, Colchester.

*Rose Kathleen*.—A rambling Rose, bearing clusters of rich pink Apple-blossom-like flowers, with white centre. Very beautiful, though not so striking as *Hianwatha*. The flowers remain fresh for weeks. From William Paul and Son, Waltham Cross.

*Vitis henryana*.—A new Virginian Creeper, having beautiful bronzy-green leaves, with silvery mid-rib and veins; the under surface is reddish purple. Discovered in China by Dr. Henry and introduced by Mr. Wilson for Messrs. James Veitch. Shown by Hobbies, Limited, Dereham.

#### ORCHID COMMITTEE.

*Cattleya Mossie Jeremiah Colman*.—A handsome form of this *Cattleya*, having pink sepals and petals. The lip is violet in the centre, with a broad margin of white; the throat is lined with purple and gold. From Jeremiah Colman, Esq.

*Cattleya Mendelii Mercury*.—A large and distinct flower. The sepals and petals are a clear bluish colour; the lower part of the lip is purple, while the lobes and upper part are white and the throat yellow. From Hugh Low and Co., Enfield.

*Madevallis henryana Gattin Park variety*.—A striking form of this handsome *Madevallis*, of a rich carmine colouring. From Jeremiah Colman, Esq.

*Odontoglossum percutum Orion*.—The result of a cross between O. Rollem and O. ardentissimum. The flower has a lilac ground colour, blotched heavily with lilac-brown; the lower half of the lip is white. From M. Ch. Vuytsteke.

*Odontoglossum ardentissimum Venus*.—A handsome flower with a white ground colour, heavily blotched with crimson purple, the ground colour only showing through in places. From M. Ch. Vuytsteke, Ghent.

*Odontoglossum percutum Juno*.—A flower of excellent form, blotched and spotted with light red-brown, and tinged with lilac upon a white ground towards the centre of the flower, leaving the outer ends of the petals and sepals white. From M. Jules Eys de Crom, Ghent.

*Phaius Doris*.—A hybrid between *Phaius Cooksonii* and *oakwoodensis*. The broad sepals and petals are rosy-buff, the long frilled lip is blotched with dark crimson upon a light crimson ground. From Norman Cookson, Esq.

### BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

THE usual meeting of this society was held at the St. John's Parish Rooms, Redland, on the 24th ult. Mr. Curtis presiding over a good attendance. The lecturer for the evening was Mr. Amos of the Bath Gardeners' Association, who took for his subject "Vegetable Culture." Mr. Amos treated his subject in a thoroughly capable and practical manner, giving sound cultural hints. A keen discussion followed, being taken part in by some of the chief vegetable growers in the district. Prizes for three cool house Orchids were awarded as follows: First, A. Shipley, Esq., (gardener, Mr. Wakefield); second, Howell Davis, Esq., M.P. (gardener, Mr. Curtis).

### SHEFFIELD CHRYSANTHEMUM SOCIETY.

THE annual show of this society will be held on Friday and Saturday, November 16 and 17, in the Corn Exchange, Sheffield. Numerous valuable prizes are offered. The secretary is Mr. W. Lewendon, 83 Nell Road, Sheffield.

### TONBRIDGE GARDENERS' AND AMATEURS' SOCIETY.

THE thirty-third annual Chrysanthemum and fruit show of this society will be held on Wednesday and Thursday, November 14 and 15, in the Public and Drill Halls, Tonbridge. A silver cup, value ten guineas, presented by A. F. Hodges, Esq., M.P., will be offered for the best group of Chrysanthemums arranged for effect, to occupy 9 feet by 6 feet. For special prizes offered by Messrs. Sutton and Sons and Mr. F. Webber no entrance fee is charged. Mr. C. N. J. Baldock, 8, Mill Crescent, Tonbridge, is secretary.

### CROYDON AND DISTRICT GARDENERS' SOCIETY.

"THE ROSES AND THEIR HYBRIDS" was the title of a paper read before the members of this society recently by Mr. W. C. Blackhill of Reading. In concluding his address Mr. Blackhill invited a discussion on the subject, in which the members freely joined.

The exhibits were quite a feature, and the following contributed: Messrs. A. Edwards, W. Bentley, F. Oxtoby, C. Thrower, W. Lintott, and T. Butcher. The exhibitors received a vote of thanks.

## BOOKS.

**Webster's Foresters' Diary.**—We are pleased to learn that the fourth annual edition of this diary was sold out in a few weeks after publication, and that not a copy is now to be had. This speaks well, not only for an increased interest in forestry, but the value placed on the book, which will again appear in December.

**The "Tatur Diseases," and Other Essays.**—Mr. C. T. Drury sends his merry little work with the above title. It is a collection of essays and verses, which will while away an idle hour. They are full, too, of observation and wise and practical thoughts. We have enjoyed many of these verses when recited by the author at horticultural gatherings, and many who have heard them will be glad to have them in book form. The book costs 2s. 6d., and may be obtained from the author, 11, Shas Road, Acton, W.

#### PUBLICATIONS RECEIVED.

Catalogue of Portraits of Botanists Exhibited in the Museums of the Royal Botanic Gardens, Kew, by James D. Milner; The Zoologist; Bulletin of the Department of Agriculture, Jamaica; Board of Agriculture Leaflets—Grafting Fruit Trees, Potato Leaf Curl, Heart Rot of Beet, Mangold, and Swede. Wide World Magazine; The Captain; The Studio.

\* \* The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 3d.

# THE GARDEN.

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## ROSES.

### NOTES AND PROSPECTS OF THE SEASON.

**CLIMBING ROSES.**—Writing on the first day of June the chief element of satisfaction for a rosarian to record is the warmer weather following upon a much-needed soaking of rain. It has been an inclement spring all round, and garden Roses especially have had a most trying time owing to the fact that from the middle of March to the middle of April no rain of any account fell, and a long spell of cold withering winds wrought considerable mischief after an unusually mild and open winter. On all sides the season promises to be a late one—this is the general opinion expressed by every rosarian I have consulted as to the condition of his plants—and, although it is always a venturesome proceeding to prognosticate where so much depends upon a notoriously fickle climate, there is every appearance that garden Roses will be at their best about July 5, the date of the great National Rose Society's show at Regent's Park.

Here wall Roses such as climbing K. A. Victoria, climbing Mrs. W. J. Grant, and others of that race have suffered most, while the wichuraiana varieties, and notably Eliza Robichon and Débutante, have come through the ordeal unscathed. Dorothy Perkins never seems to get injured by spring frosts, and in the last few open winters it has never actually stopped growing. The fact that it is a late bloomer is really a considerable advantage, because its flowers are in consequence never injured by frost. Among the multiflora hybrids Leuchstern is remarkably hardy, while Aglaia and Electra are two of the tenderest, and are often hard hit by spring frosts; certainly their earliness is a distinct disadvantage. In this class The Dawson is valuable on account of its earliness and soft colouring. It is generally the first to flower of this type, and does not therefore suffer in comparison with some of the later novelties which are, in their season, more beautiful. Waltham Bride is very early and most promising. It is a rampant grower and looks like being the earliest of all the multifloras; moreover, like Trier and Grös an Zabern it is very fragrant. These latter are multiflora hybrids

crossed from the Musk Rose. Herr Peter Lambert, the raiser of these two excellent varieties, sent me a tall standard of the former in the autumn of 1904, and, despite its long journey, it flowered most abundantly, and was extremely beautiful last summer. It also flowered again in September, but sparsely, as little fresh growth was made. However, I saw enough of it to be able to assure your correspondent "Rambler" (page 292) that it is perpetual. The buds are tinted with pink, opening into yellowish flowers, which gradually fade white; they last in beauty for a long period, and are enhanced by rich green glossy foliage.

Trier is a Rose which I can most strongly recommend, and it will sure to take a foremost place in the garden when better known. Unfortunately, during last winter the head of my plant was wrenched off during a gale, and I only now have half-a-dozen cuttings which were rooted under glass, but from which I hope to be able to obtain buds in order to work it as a standard again.

Awards given to Roses grown under glass are, I fear, most deceptive to the ordinary public, as of course they do not afford any guide as to their utility in the garden. As an instance let me mention Perle des Neiges, to which the floral committee of the Royal Horticultural Society granted an award of merit at the Temple Show in 1904. In this country it has proved quite useless out of doors, although a friend who saw it growing at the raiser's (F. Dubreuil) establishment at Monplaisir, Lyons, France, tells me that there it was very good outside. Stella is a new variety of the Leuchstern type, of which I hear good reports; but it would appear difficult to improve upon Leuchstern, Waltham Rambler, and Kathleen. I was much struck by this new variety when seeing it for the first time on May 15. It is a true multiflora with a graceful habit. The flowers are somewhat of the Blush Rambler type, but much deeper in colour. They are extremely lasting, and the corymbs of bloom are not so stiff as in the last-named variety. Whether it will prove as effective as Leuchstern outdoors remains, of course, to be proved. Cora, which is mentioned on page 292, is apparently midway between the Ayrshire and the multiflora varieties. The buds open light bright pink, fading to almost a mauve-pink when fully open; they are

quite double, and rather resemble those of Bennett's Seedling.

Among raisers of Rambler Roses Mr. M. H. Walsh of Wood's Hole, Massachusetts, U.S.A., is now easily first. Last season his Lady Gay took the Rose world by storm, and this year his new Hiawatha created quite as great a sensation at the Temple Show. It is a magnificent plant, with grand, shiny foliage and fine habit. The flowers are almost Blush Rambler in shape and size, and the colour of Carmine Pillar.

**DWARF ROSES.**—As far as Teas and Hybrid Teas are concerned, those who pruned their plants about the middle or end of April will probably have blooms quite as early as those who pruned a fortnight or even three weeks earlier. From May 9 to May 22 is, in this locality, usually the period in which most damage is done by frost; but, fortunately, May in this part of the Midlands has been a rather rainy month, and in the absence of frost the plants are fast recovering from the check received in the previous month. The prospects of the season as far as exhibition Roses are concerned are, from the numerous reports received, not very encouraging. But a good spell of hot, sunny weather would quickly alter the appearance of things, and it is to be hoped that this will have set in long before these lines are in print. Maidens since the rain have grown strongly, but both caterpillar and aphid have been strongly in evidence.

**LYSOL.**—I have been using Lysol as an insecticide according to the maker's instructions, but found that it injured the young buds and foliage in a number of cases. As far as aphid is concerned, it certainly proved most deadly, and every caterpillar it reached also succumbed. But I shall use a weaker solution at my next spraying and report upon it again.

Worcestershire. ARTHUR GOODWIN.

"E." WRITES: "The Roses in my hilltop Buckinghamshire garden are recovering certainly from the unpleasant spring, but I shall have few flowers I fear for the show in the Botanic Gardens. At the time of writing genial showers would be beneficial. Green fly and maggot have caused much mischief, but these have, by patient work, now been overcome. Garden Roses are promising well, and there should be a flood of flowers very soon."

## NOTES OF THE WEEK.

## FORTHCOMING EVENTS.

- June 19—Oxford Commemoration Show.  
 June 20.—York Gala (three days). Royal Horticultural Society's Exhibition of Table Decorations.  
 June 26.—Royal Horticultural Society's Exhibition and Meeting.  
 June 27.—Richmond (Surrey), Chippenham, Colchester, Farnham, Farningham, Reading, and Southampton Flower Shows.  
 June 28—Isle of Wight, Canterbury, Norwich, and Walton-on-Thames Rose Shows.  
 June 30—Windsor and Eton Rose Show.

**Rosa sericea pteracantha.**—It was due to Messrs. Paul and Son, the Old Rose Nurseries, Chessington, that we were able to figure this interesting and beautiful Rose in THE GARDEN of the 2nd inst. Messrs. Paul exhibited it at the great show at Edinburgh last autumn and received a first-class certificate for it from the Royal Horticultural Society. On both occasions it was much admired. The pretty white blooms give a sweet summer beauty to the plant.

**York Gala.**—The Grand Yorkshire Gala and Flower Show will be held on Wednesday, Thursday, and Friday, the 20th, 21st, 22nd inst., in Bootham Park, York. Prizes to the amount of £800 will be awarded for fruits, flowers, and plants. Mr. Fred Arey, Dayhall Chambers, York, is the secretary.

**The Neill Memorial Prize.**—At a meeting of the council of the Royal Caledonian Horticultural Society, held in Edinburgh on June 6, Mr. W. H. Massie, one of the vice-presidents, in the chair, it was unanimously agreed to award the Neill Memorial Prize to Mr. James Whytock, gardener to the Duke of Buccleuch at Dalkeith Palace. The prize, which is awarded biennially, is the proceeds of a bequest left by Dr. Patrick Neill, the first secretary of the society, and is awarded to gardeners distinguished for their attainments and for the work they have done in advancing horticulture. The holder for the last biennial period was Mr. R. P. Brotherston.

**First meeting of the Winter-flowering Carnation Society.**—The inaugural meeting of this society was held at Anderton's Hotel, Fleet Street, on the 29th ult., Mr. J. S. Brunton presiding. The business was preceded by a dinner, to which about thirty sat down. A good many more came to the meeting later. The chairman, in opening the proceedings, briefly stated the objects of the society, which were to promote the culture of the most useful Carnations for decorative purposes, especially for winter use. He expressed regret that the promoters had failed to arrange with the National Carnation Society for amalgamation. It was stated that correspondence had taken place with this aim, but, having failed, it was thought desirable to form a separate society. The chairman explained that this was not done in any antagonistic spirit. The matter which was first pushed forward by Mr. Hayward Mathias has met with considerable success. It has already been stated that a provisional committee, with Mr. Brunton as president and Mr. Mathias as secretary and treasurer, was started in February. Mr. Mathias read the minutes of the meetings which have since taken place, and stated that up to date there was a membership of sixty-seven. (To this number several were added during the evening.) The subscriptions, the minimum being 5s. per annum, had come in well, some members paying considerably more than the limited amount, something like £36 being already in hand. Rules had been drawn up for approval, which were submitted, and, after considerable discussion and some slight alterations, were

approved of and passed. Mr. J. S. Brunton was unanimously elected president, Mr. S. Mortimer vice-president, Mr. Mathias secretary and treasurer, and Messrs. Dean and C. H. Curtis auditors. The following were elected to serve on the committee, the first seven being those provisionally elected on the provisional committee: Messrs. W. E. Boyes, H. J. Cutbush, A. F. Dutton, C. E. Engleman, H. J. Cadman (of T. S. Ware's), Cook (Hugh Low and Co.), Armitage, W. H. Page, E. F. Hawes, W. J. Godfrey, A. Hemaley, G. Clark, Sherwood, and Dr. Cuffon. It was decided that an exhibition should be held annually in the first or second week in December, and supplementary shows if circumstances warranted it; also that a floral committee should be appointed to deal with new varieties and other work in the way of nomenclature, &c. Some discussion took place as to where the exhibitions should be held, but nothing definite could be settled; it was left to the committee to make the best arrangements possible.

**Injury to the Lothians Potato crop.**—The excessively heavy rainfall for May in some parts of Scotland has been felt with unusual severity in East Lothian, in which Potatoes form one of the staple crops. These were excessive on the farms along the coast line, and in a number of these, such as in the Dunbar district, the damage to the Potatoes by a large number being washed out of the land, and by the consolidation of the soil by the weight of standing water, has been very great. In addition to this, the fertility of the soil has been lessened by the washing away of much of the manurial supplies, with the probability that the yield of Potatoes will be reduced. In some of the higher parishes much of the seed was washed away, one farmer reporting about four acres of Potatoes completely swept away, while others state that their losses are also heavy. An estimate of the loss of the manurial properties from the land places this as high as about £2 per acre on Potato land. In a smaller degree this damage has been felt in other parts of Scotland.

**Ixias and Sparaxis out of doors.** I see in a recent number of THE GARDEN that Mr. Fitzherbert states, in reply to a statement that Ixias will not succeed as hardy flowers in any part of Great Britain, that they will do in the climate of South Devon and Cornwall. They grow here quite well in a light soil close to a south wall. I bought some bulbs three years ago, and planted them out at once. They have flowered very well for two years, and are now covered with buds. They generally flower here about the middle of June. From the time they were planted they have had no protection of any sort, and have never been moved.—LAWRENCE LEES, Tottenhall, Wolverhampton.

Ixias succeed quite well in a garden at Chiswick, near London, the border facing south.—C.

I quite agree that your correspondent Mr. T. B. Field in his article on these pretty bulbs has ignored Devonshire and also Ireland, as here they do well and have done for many years on a warm border banked up with bricks and facing south, where Chionodoxas become veritable weeds.—GREENWOOD PIM, Monkstown, Dublin.

**The weather during 1905.**—In his report on the Phenological Observations for 1905, reprinted from the Journal of the Royal Meteorological Society, Mr. Edward Mawley says: "As affecting vegetation, the weather of the phenological year ending November, 1905, was chiefly remarkable for the dryness and mildness of the winter months, the drought and frosts in May, the long spell of hot and dry weather in July, and an exceptionally cold period in October. Wild plants came into flower a few days earlier than usual until about the beginning of May, after which time they were, as a rule, to about the same extent late. Most of the early spring migrants, such as the swallow, nightingale, &c., reached these shores rather in advance of their average dates. The best farm crops of the year

were those of Wheat, Beans, and Hops; while Barley, Potatoes, Turnips, and Mangolds were all more or less over average. On the other hand, the yield of Oats, Peas, and Hay was almost everywhere deficient—the latter being the worst crop of the year. Apples, Pears, and Plums were in all parts of the British Isles below average, whereas the small fruits, as a rule, yielded moderately well. Taking the farm crops alone, the past year must be regarded as having been, on the whole, a fairly bountiful one."

**Destroying water rats.**—These can be easily killed. Get some fresh-water fish, carp, roach, rudd, &c., cut into pieces about 1½ inches to 2 inches square with a knife and fork, but do not touch with the hand. Put some strychnine into each piece and place on the banks of streams before sunset. Repeat twice a week. I helped to clear a marsh farm last spring with great success.—WILLIAM H. CUTBUSH, Logans, Blenheim Road, High Barnet

**Autumn flower show in New Zealand.**—The autumn show of the Auckland Horticultural Society, April 20, 1906, is always a popular fixture, and the increasing sway on growers and lovers of flowers that the queen bloom of the autumn, the Chrysanthemum, is exerting, has of late years practically ousted other floral competitors from any very great prominence. As usual, this bloom holds pride of place again this year, although it is noticeable that the Dahlia, more especially of the Cactus varieties, is now making a big bid for an honourable place in the field. The Japanese, as usual, are conspicuous. The incurved classes are, if anything, poorer than usual, which is accounted for largely by the fact that it does not appeal to the average grower as does the more showy Japanese bloom.—Auckland Star.

**Exhibition of photographs.**—A small exhibition of some very remarkable photographs of animals and domestic pets, by Mr. Henry Stevens, opened on the 8th inst. at the office of the *British Journal of Photography*, 24, Wellington Street, London, W.C. Mr. Stevens, who is one of the most skilled photographers of these subjects, is well known to a large public as the head of the famous Stevens's auction rooms, in King Street, Covent Garden, founded in the middle of the eighteenth century. He has practised photography from the days of the "wet" process. In photographing flowers the exposure of the plates often lasts for half an hour compared with the half or one second, which is a fairly long exposure for an animal study. Remembering this enormous difference in method, it is interesting to note the uniform exquisite quality of the results in both classes of photograph. The exhibition remains open until July 21, and is open free to the public daily.

**Flowers in a County Down Garden.**—Although this season has been backward and it has been difficult to get out such plants as Vegetable Marrows, Pumpkins, Gourds, and ridge Cucumbers, yet the Apple trees do not appear to have suffered from the long late cold spells with which we have been visited. The orchard, which was top-dressed with seaweed, is covered with rich dark green grass which gave a fine under-ground to the red and white Apple blossom. A feature of the rock gardens and borders was the Aubrietia. Of these the variety known as Dr. Mules should be grown, as well as some of the newer crimson varieties. There are also several new varieties of the Yellow Alyssum. It may now be had in a sulphur colour, and also in a dark brown. It, too, is one of the charms of the rocky border. The Glory Pea (*Climanthus puniceus*) against the walls is blooming very freely, and as this plant is very easily raised from seed and is practically hardy against walls, everyone should grow a few plants of it. Nothing I think has given more pleasure in the garden in this district than this plant.—W. SMYTH.

**Munster-Connacht Exhibition.**

In connexion with the Munster-Connacht Exhibition a floral fête and flower show will be held at Limerick on Friday and Saturday, August 17 and 18. A Potato and vegetable show will be held on Friday and Saturday, August 3 and 4. Mr. E. Travers, 17, O'Connell Street, Limerick, who is secretary of the exhibition, will be glad to send all particulars.

**Holywood Horticultural Society.**

The fourth exhibition of flowers, fruit, and vegetables will be held in the Town Hall, on Tuesday, July 10, when valuable money prizes will be offered for competition. Entries close on Tuesday, July 3. The prize schedule can be had from the hon. secretaries, Mrs. Dunlop, St. Helens, Holywood, and Walter Smyth, Esq., Faunmore, Holywood; or the hon. treasurers, Mrs. Hughes, Dalchoolin, Craigavad, and F. Smith, Esq., Bank House, Holywood.

**Self-sterile Compositæ.**

—Last March I read with great interest an article by Mr. Irwin Lynch, of Cambridge Botanic Garden fame, on *Gerbera Jamesoni* and its hybrids, in the *Gardener's Magazine*, and I ceased to wonder why I never succeeded in getting any fertile seed from my flowers of this species. For though I had two plants often in flower simultaneously, they were located in different houses, and the pollen could not intermingle. This matter could of course be now easily set right, but alas! another, nearly as bad, had developed itself from a perusal of Mr. Lynch's remarks on the seeding of the Compositæ, and especially the self-sterility of the *Cineraria*. For I had just carefully saved and sown a nice lot of seed of an exceedingly lovely blue *Cineraria stellata*, which had been given to me by a friend and which was the "apple of my eye," to use an old-fashioned expression. It was my only *Cineraria*, a veritable gem, and now I had discovered that the much-prized seed was, undoubtedly, useless and sterile. My gardener and I very nearly wept. This was in March, when no friendly bees or other insects were about, and we did not know of another *Cineraria* near enough to have helped us. So we sadly looked at the seed-pan in the propagating frame, scratched our heads, and gave it up. But at this present moment, to cut the story short, I am the proud owner of no less than twelve fine bouncing young *stellatas* in the rudest of health, which certainly came out of that seed-pan, and will, I hope before long, develop into the heavenliest of heavenly blues. It seems, then, that, neglecting the almost impossible chance of fertilisation from other plants, this form of *Cineraria* was not subject to the same hard and fast law as the ordinary one. I should be very glad to hear more about this very fascinating subject. It will be a decided gain if we can perpetuate a real good shade of colour by seed from isolated specimens of *stellata*.—S. G. R., *Yalding*.

**Rhubarb leaves as a vegetable.**

As my note of April 7, recommending Rhubarb leaves as a substitute for Spinach, was adversely criticised by some of your correspondents, I feel I ought to say a few more words upon the subject, and in the first place to express my sincere regret to those who have suffered inconvenience through acting upon my advice. As several friends to whom we recommended the vegetable, also myself, have felt no inconvenience whatever from eating this "Rhubarb Spinach," the unfavourable symptoms must doubtless be attributed to the way the vegetable was prepared for table. In countries or in districts where fungi in great variety are highly esteemed as culinary delicacies (in England the great majority only know the Mushroom, while all others are Toadstools), it is well understood that some species require to be prepared in a special way, and unless this is seen to symptoms of poisoning ensue. In this respect I need but refer to the fungus *Helvella esculenta* Pers. (I forget the English name),

which, if eaten raw or even if prepared with the first water in which it had been boiled, is to some extent poisonous. The first water, however, having been poured away, and several scaldings through a strainer applied, it is a delicious and harmless dish. The rough-and-ready way in which vegetables are cooked in England may, if, as is asserted, Rhubarb stalks and leaves contain certain salts which do not agree with everybody, account for the unpleasant results to some systems. In England, if memory serves me right, Spinach is steamed in its own natural moisture, perhaps with the addition of a few drops only of water to start it. Now if Rhubarb leaves were cooked in this same fashion, the injurious salts spoken of would all remain in the cooked vegetable and probably account for the mischief. If "E. R. H." (page 255) speaks of "bitterness," I do not know what he means unless he confounds bitterness with acidity. The latter, however, is by no means disagreeable. Rhubarb tart is such a national dish in England that I fancy the "poison" contained (in the stalks, at least) cannot be of great potency, or else all England would be in trouble during the Rhubarb season. As it is so delicious a repast, however, I can well imagine someone eating too freely of it. The following recipe may be useful as showing the difference in the way of preparation: Wash the leaves and remove the thick ribs, plunge into boiling salt water, and let them continue to boil for about ten minutes. Then press the water out through a strainer, and mince very fine on the chopping-board. Put some butter into a pan and dredge a very small quantity of flour into it, leaving it over the fire until of a light yellow colour. Add the Spinach pulp and a little meat

gravy to it, stir well, and let it cook for another twenty minutes or so. The longer it is left over the fire, the more will the acid flavour disappear (if this be objected to).—E. H., *Planegg, Bavaria*.

**A rare Orchid (*Cymbidium rhodochellum*).**—This remarkably distinct and handsome Orchid was introduced from Madagascar a few years ago, and only a very few specimens are in cultivation. The flowers are borne on semi-erect racemes; sepals and petals are bright apple green, speckled with blackish purple, the broad recurved labellum being of a bright rose-red colour with a central band of yellow on a milk-white ground speckled with dark purple. It is in flower with Messrs. William Bull and Sons, of King's Road, Chelsea, and was shown by them at the recent show in the Temple Gardens.

**THE FRUIT GARDEN.****HOW TO PROVIDE STRAWBERRIES IN SUMMER AND AUTUMN WITHOUT THE AID OF GLASS.**

**S**TRAWBERRIES may easily be obtained throughout the summer and autumn without the aid of glass. If the large fruiting, the Alpine, and the perpetual varieties are grown, Strawberries may be had, in a good season, from June to November.

**THE LARGE-FRUITED STRAWBERRY.**

This Strawberry may be grown on any good garden soil, but a sandy loam is most to be



A RARE AND BEAUTIFUL ORCHID SHOWN AT THE RECENT TEMPLE SHOW.  
(*CYMBIDIUM RHODOCHELLUM*.) (Reduced.)

recommended. Ground that is apt to dry quickly is not suitable. A soil that is naturally somewhat moist but not too wet answers well. If the nature of the ground will permit, it should be trenched 2 feet deep, plenty of rotten manure being used at the same time. Most of this should be about 1 foot from the surface. If the subsoil consists of loam this should be turned up on top and mixed with a little rotten manure. This will prevent too much coarse foliage. With stiff soils some light material should be mixed, such as leaf-mould or peat.

**Planting.**—The best time for this is as soon as the plants are well rooted. If the ground is not available in summer it should be done early in autumn, while the soil is yet warm enough for them to root before the winter. If this cannot



be done, wait until March, and plant when the weather is favourable. When it is foreseen that the plantation cannot be made in autumn, the plants may be taken up and put in beds 4 feet wide, the plants being 6 inches apart. An alley 1 foot wide should be left between the beds for convenience in weeding and watering. In this way four perches will hold enough to plant a quarter of an acre. When the ground is ready trenches should be drawn with a hoe as for sowing Peas. The plants should be carefully lifted with balls of earth and planted with a trowel. The distance between the rows depends on the variety grown. In rich soils varieties with large foliage may have 2½ feet between the lines and 18 inches between the plants. For such plants as Royal Sovereign 2½ feet apart each way is not too much. It is a good plan to put them rather close the first year, say, 1 foot apart, then, after fruiting, to take out each alternate plant. Those taken out may, if required, be replanted.

**Cultivation.**—The plantation being completed, the ground should be hoed and kept free from weeds. Runners must not be cut off on their first appearance, or too much foliage will be produced. Mulching with stable manure between the rows is adopted by many growers, and a dressing of lime helps to check wire-worms and slugs. Straw should be put on as soon as the plants show signs of bloom, so that the fruit when produced may be kept clean. From the time of blooming till the fruit is ripe care should

be taken that the plants do not suffer through lack of moisture. The plantations should be renewed every three years. If grown on a large scale a part should be renewed every year. Runners are produced in abundance by most varieties. The growing points of these are furnished with a bud. When the runner has extended some distance the bud unfolds, and roots are emitted from its base. Three or four runners on each plant should be pegged into small pots or turves. As soon as the young runners have rooted the new plants should be removed or the stolon cut. They should be planted as directed in prepared ground. The earlier they are moved the stronger plants they will make. If a bed is to be destroyed, as many runners as are wanted should be left.

**Varieties of Large-fruited Strawberries.**—Royal Sovereign, early; Admiral Dundas, mid-season; A. F. Barron, mid-season; Black Prince, early; British Queen, splendid flavour; Dr. Hogg, the finest of late fruit; Latest of All and Waterloo, good late sorts; Noble, the largest early; President, high flavour, useful main crop.

#### ALPINE STRAWBERRIES.

These should be raised from seed, and may be treated either as annuals or biennials. Plants raised from seed are much better than those produced by runners; in fact, one of the former will bear more fruit than six runners. The seed should be sown in

August, the seedlings being pricked off as soon as large enough, and planted according to the instructions for large-fruited varieties. Or the seed may be sown in March in frames, the seedlings pricked out as before, using fine soil, finally planting them out in well-prepared ground, 18 inches apart each way. If they are put out in the autumn so much the better. They may be allowed to bear an early crop the next summer, but the better way is to pick off all flowers until July. By this means a grand crop would be produced until the autumn frosts cut them down. The next year they may bear an early crop, and they will continue fruiting right into August, and afterwards should be destroyed. The annual raising of a number of seedlings will recommend itself.

**Varieties of Alpine Strawberries.**—Belle de Meaux is quite distinct; Improved White superior to old white; Rouge Amelioré very prolific.

#### PERPETUAL STRAWBERRIES.

The ordinary methods of cultivation do not suit these

Strawberries. The successional crops of fruit are produced upon the first and second runners of the current season. The plants should be placed far apart, and runners encouraged as early as possible, even, if necessary, stripping the old plant of its flower trusses. These runners should be pegged down securely, stopping the growth beyond the second one. As soon as they are well rooted the old stools should be removed to make room for the young stocks. These will soon show their flower trusses, and in due course the fruit will ripen. Watering should not be neglected. Never retain the old stools of perpetual Strawberries. Treat them as annuals, renewing the stock every year from runners. In the autumn it is a good plan to support the fruits with small twigs, as autumn rains are liable to spoil the berries.

**Varieties of Perpetual Strawberries.**—St. Antoine de Padoue, St. Joseph, Jeanne d'Arc, and Oregon. JOHN KELLY.

Wrackford House Gardens, near Dorchester.

## THE KITCHEN GARDEN.

### VALUABLE DWARF BEANS.

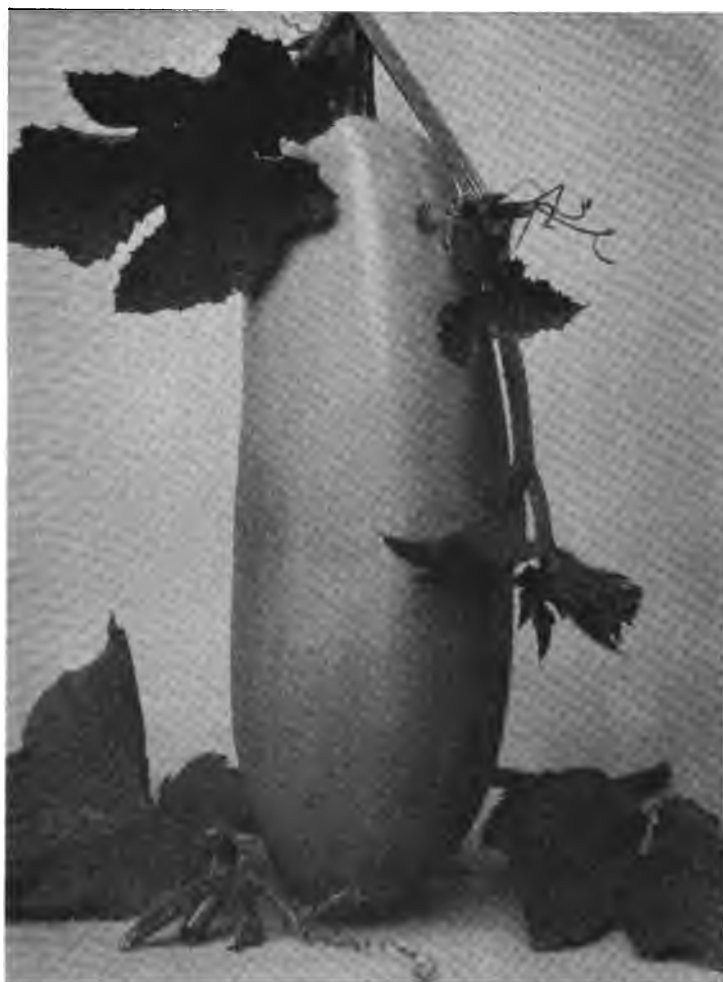
THE Dwarf French Bean plays an important part in the garden during the summer months. As it is a dwarf it can be grown by those who have not space for the larger runner. The intermediate type, the Climbing French, has found many admirers of late years, but some are unable to grow these sorts owing to their requiring supports; at the same time, they are valuable for the quantity of pods they produce, and their long-cropping season. My note more concerns the Dwarf French, a Bean which I consider is one of the most useful for table from June to November, a long period, but with a little attention to cultural details there is no difficulty in having good Beans for the season named. First on the list, and one of the best, is Sutton's Reliance, a variety not nearly as well known as its merits deserve, but it is a comparatively new introduction, and in a few years will, I feel sure, become a standard variety. This fine Dwarf Bean was on trial in the Royal Horticultural Society's garden, and in 1903 received an award of merit for its good-cropping qualities and free growth in a poor soil. Unlike some of this section, it is a good dry-weather Bean, the plant is vigorous, and not readily affected by the weather. The pods are somewhat larger than those of the well-known Ne Plus Ultra, longer, and exceedingly tender. Always gather every other day, and cook them whole, as in this way their flavour is much better than that of larger Beans. When sliced there is much waste, though the pods are more quickly prepared.

**CULTURE OF DWARF BEANS.**—These plants, to do them justice, should not be crowded. The seed is frequently sown quite close together, whereas when each plant stands out by itself it crops much better, and gives less trouble in every way. To maintain a succession of these Beans seed sown early in May will give pods by the middle of June, a little protection being afforded at the start, or, what is better, sow the seed under glass late in April, and plant out in May. Make a sowing monthly till August to give later crops, and from the August sowing, by sheltering from frosts, we gather well into November. The last sowing is made on a sheltered border.

There are plenty of good dwarf varieties, and no note would be complete which omitted to name such sorts as Veitch's Progress, a fine, large, fleshy Bean, not so early as Reliance, but a splendid continuous bearer for a long season. Early Favourite also is a very fine forcing Bean. It should be in all gardens where quality is required. Other fine forcing sorts are Sutton's Forcing, a very dwarf and prolific variety, the larger Magnum Bonum, and Perfection, a stringless Bean of great value. The writer a



DWARF BEAN SUTTON'S RELIANCE.



THE LONG CREAM MARROW.

few seasons ago obtained a very early Bean, Early Gem, by crossing the Syon House with the older Mohawk; the latter is often known as the Six-weeks; the result is a very early pod of good quality, and an enormous cropper. This new Bean in the trials referred to above, in 1903, obtained an award of merit.

Among the dwarf section mention must be made of the Dwarf Sugar Beans, a type of Bean that has not made much progress in this country, but, like the stringless sorts on the Continent, they are great favourites. Dwarf Sugar should be in all vegetable gardens. The pod is rounder, more fleshy, quite tender, and when cooked whole it is excellent, quite distinct from the runner.

G. WYTHES.

### VEGETABLE MARROWS.

THESE are generally much appreciated, and fortunately their culture and requirements are so simple that they may be cultivated successfully by the humblest cottager. I have long urged making a start much earlier than is generally the case, thus causing their fruiting period to be about twice as long as usual.

**CULTURE.**—The seed should be sown in heat, singly in small 3-inch pots, early in February. Pot on into 6-inch pots when the seedlings are large enough, and grow on in a temperature of about 55° on shelves near the glass. By the middle of March plant out in portable frames on very mild hot-beds, treating the plants at this season much in the same way as one would Cucumbers, except that they must be given air more freely whenever the weather is mild. By the end of April

good Marrows should be had in plenty, and I know of no forced vegetable which finds a more ready market at good prices. It is surprising what a large number of fruits may be cut from an ordinary three-light frame. Immediately it is safe to do so, after having well hardened the plants, the frames may be removed altogether and used for other purposes, such as Cucumbers and Melons, they will be in full bearing just about the same time as the plants put out in the ordinary way. By giving a good surface-dressing of turfy loam and well-decayed manure these will continue to bear abundantly till frost cuts them off. The Marrow is a moisture-loving plant, consequently hardly too much moisture can be given them both overhead and at the roots when planted in high and exposed positions.

**PLANT NOW.**—Plants which are intended for planting in the usual way should be put out now on prepared mounds, as it is never safe to do so, except, of course,

in very "favoured positions, before the first week in June unless protected in some way. Though these plants will grow and fruit fairly well in almost any aspect or position during the height of summer, there is no doubt that the ideal site for them is a fairly sheltered position facing south or west. These are also extremely useful for trailing over unsightly heaps of rubbish or leaves, or for training up stout rustic stakes to act as a screen. I am surprised more people do not realise the fact that the ripened fruits are excellent during winter when other vegetables are none too plentiful. When prepared and served up much in the same way as Turnips they are most palatable.

**VARIETIES.**—Great improvements have been effected among Marrows. Among white varieties of trailing habit I may mention Moore's Cream, The Sutton, and Pen-y-byd; and the best greens I know are Prince Albert and Sutton's Perfection. The bush varieties are largely grown for market, but in my opinion are not nearly so delicate in flavour.

E. BECKETT.

### A VALUABLE AUTUMN CABBAGE.

IN many gardens autumn Cabbages are not much grown, but they are worth room if a small sweet, close-growing variety is wanted. It may appear singular to write about autumn Cabbage in the spring, but to get the best results seed should be sown in May or June; the exact date cannot be given, as so much depends upon the locality, if early or otherwise. For some years I have made a good sowing of autumn Cabbage at this season, and of late years have grown Little Gem for the

season named. It is a valuable addition to the early autumn vegetables, as it is fit for use from September to Christmas, and is very little inferior in quality to the early spring Cabbage. This small useful Cabbage was given an award of merit by the Royal Horticultural Society a few seasons ago, and it well deserved it for its delicate flavour, dwarf, compact growth, and its hardiness, as it remains good such a long time after it is fit for use. It is much harder than the Rosette Colewort, and therefore more suitable for exposed gardens. Being small, it may be grown rather close together. It is an ideal Cabbage for a small garden, and quite as valuable in large ones, as it is fit for use when other Brassicas are strongly flavoured. I do not advise it for autumn sowing, but spring-sown for autumn supplies.

G. WYTHES.

## THE ROSE GARDEN.

### LYSOL AS A REMEDY FOR MILDEW ON ROSES.

I SEE you still recommend sulphur and potassium sulphur as a cure for mildew on Roses. For years mildew has been an absolute plague in my small Rose house, and I have found these two remedies quite inefficient. Having seen "Lysol" recommended in your journal, I tried it, and find it an absolute cure when the solution is sprayed with a very fine syringe, such as the Abol Sprayer. When isolated spots of mildew occur, I rub a fairly strong solution of Lysol on the leaf, between the fingers. The result is that the growth of my Roses this year is infinitely stronger and healthier than for a long time past. I am told that mildew can be cured with sulphur applied through Campbell's Sulphur Vaporiser, and with the No. Effic Mildew Destroyer, but I assure you that sulphur applied in the ordinary way and potassium sulphide solution may now be considered to be superseded.

I might mention that after applying the Lysol solution through the syringe, I shake the plants, as large drops allowed to dry on the ends of the leaves cause disfigurement.

R. E. B.

### WORK AMONG THE ROSES.

THAT most insidious enemy the maggot will engage the anxious attention of the rosarian just now, and much of his success or failure will depend upon his zeal in hunting and destroying the depredators. In the search among the plants sometimes Rambler Roses are overlooked, but the time occupied by a lad in going over those Roses that are upon arches and pergolas will be well repaid in a more abundant flowering. Such sorts as Dorothy Perkins are especial favourites of the maggot.

ROSES ON WALLS are opening fast, but many of the blooms are small and thin. One needs to be early in supplying needful nourishment to the root, in order that it may be effective, and even now where the buds are swelling liquid manure should be given twice a week until the colour is seen in the buds. To prevent the liquid running to waste, make some saucer-like cavities around each plant, and, when the liquid has been given, fill up the cavity with short, well-decayed manure. To old plants that have been in their present quarters many years, some holes made with a stout crowbar and frequently filled with liquid manure is a great help, which is manifested not only in the flower, but in the subsequent growth. Rather than encourage a crowding together of the growths, a few of the half-pendulous shoots should be allowed to droop from the walls, arches, or pillars. They thus lend quite a natural appearance to the plants, and at the same time aid in the production of good quality and well-developed clusters. Where wall Roses are infested with green fly, the syringe should be applied with some force to dislodge the



A MAGNIFICENT PLANT OF BERBERIS STENOPHYLLA AT KEW.

culprits. A little paraffin mixed with warm water, or, better still, some paraffin soap made into a wash, are effective exterminators of aphids.

LATE PLANTED ROSES, including those from pots, should be kept watered and mulched. It is not necessary to mulch with objectionable manure, for dusty soil makes a most effective mulch if scattered on the surface after each watering.

WEeping ROSES must be tied out where necessary. After being established three or four years the plants will droop of their own accord, but the first two years they need artificial aid. Some green raffia or string attached to the growths and then secured to the stem is all that is necessary as a rule. Some of the half-climbing Roses grown in standard form should also be tied out in this way, and any sort that is a shy bloomer the tying over umbrella fashion is a great inducement to the production of blossoms. Let all Roses on stems have good strong supports.

THINNING THE GROWTHS of all bush and standard Roses should now be completed. A large number of small weakly shoots clustering together can produce no creditable Roses. Let these be reduced to one, and where the plant seems overcrowded now is the time to reduce. Especially free the centres of bushes and standards so that light and air may penetrate. Varieties that produce heavy blossoms, such as Marie Baumann, Earl of Dufferin, &c., must have the shoots supported by small sticks. This, of course, would only apply to bush plants.

LIQUID MANURE should now be given freely to the beds and borders. It must always be remembered that the strongest and most vigorous plants can utilise a larger quantity of liquid than those that are weakly. Where a number of Roses are grown it is a good plan to have a small cement

or brick tank made beneath the ground level. A cartload or so of cow and horse manure in equal quantities laid near and allowed to drain into such a tank makes splendid liquid, especially if a bag of soot is also thrown in. A plan often adopted is have such a tank made in the spare yard near a water supply. Two or three wheelbarrow loads of manure are thrown in, and the tank filled up with water. Better still if such a tank could be connected with the rain-water pipes. The bag of soot is also thrown

in, and then in about two days the liquor is fit to use. For strong-growing Roses it may be applied neat, and diluted about half strength for others. Drainings from stables may be added, but this alone is too hot, and encourages foliage too much at the expense of blossom.

STANDARD AND HALF-STANDARD BRIARS FOR BUDDING are looking well this year, and promise to be a full crop. Thin out the young growths. It is customary to retain the three strongest near the top of Briar and rub off the others. When going over the Briars examine the points of those retained, as frequently there is a maggot lurking, and if left will spoil the shoot. The ends of the Briar stem should be painted over with knotting used by painters. This prevents the saw fly from depositing eggs in the pith, which, when the grub emerges frequently causes disastrous havoc.

NEW ROSES should now be procured and potted on for buds. Grown in heat, the plants will yield a grand lot of buds in about six weeks' time. P.

## CYTISUS PRÆCOX.

A FRIEND of mine was here for the week-end a short time ago, and took several photographs in the garden, among others the accompanying one of a *Cytisus præcox* in full bloom hanging gracefully over the slope of a grass bank on the lawn. There was a slight breeze at the time from the north-east, just enough to keep the pendent twigs of the Broom in motion, and it was a work of considerable skill and patience to hit off the proper moment for squeezing the bulb. The result, I think I may say, was a decided



ONE OF THE EARLY-FLOWERING BROOMS (CYTISUS PRÆCOX).



success. All the Brooms so far have flowered magnificently this year, and there is promise of a good show on the part of the later species.

Yalding, Kent.

S. G. R.

## BERBERIS STENOPHYLLA.

It is when one sees this shrub in full bloom that one wonders at the prevalence of so many uninteresting evergreens in our private and public gardens. There is many a shrubbery given up to such things as Privet and Laurel which might just as conveniently be occupied by a group of this beautiful Barberry. It is absolutely hardy, of singularly graceful habit, and never fails to blossom profusely. Any soil appears to suit it, and it can be propagated freely under bell-glasses out of doors in late summer. It is a hybrid between *B. Darwini* and *B. empetrifolia*, and was sent out from the Handsworth Nurseries, near Sheffield, thirty years or more ago. It forms a dense thicket of interlacing growth quite impenetrable, but sends out each summer long arching shoots, which are covered the following spring with rich golden-yellow flowers. It is used abundantly at Kew as an undergrowth to the Oak, Elm, and other thinly-planted tree collections.

B.

## THE FLOWER GARDEN.

### THE MERTENSIAS.

**P**ROBABLY the best known of the *Mertensias*, or Borage-worts, is the Virginian Cowslip (*Mertensia virginica*), which, in early spring, bears drooping clusters of beautiful purplish blue flowers on stems about 1 foot high. A moist, peaty soil in a sheltered spot suits it best. *M. alpina* grows only some 8 inches or 10 inches high, and should be planted on the rock garden. *M. maritima* (the Oyster Plant) is a British seaside plant; it may be grown in gardens if given a light, sandy soil and sunny position. *M. sibirica* grows well in ordinary garden soil; it is more vigorous than the Virginian Cowslip. *M. primuloides*, the one illustrated, is a beautiful little plant, growing about 6 inches high, with purplish white-edged flowers in clusters. It was shown by Messrs. Cutbush and Son before the Royal Horticultural Society recently, and then received an award of merit.

### HELONIOPSIS BREVISCARPA.

I was indebted to the coloured plate in *THE GARDEN* last April for an introduction to this little plant, which has flowered with me this spring. It has been very pleasing, and I have not had any reason to regret its purchase. It has been cultivated in a peat bed at the base of one of my rookeries, where it was well supplied with water last summer and autumn. It flowered in March, and was very pretty with its white flowers, with lilac purple anthers, the flowers

being rendered additionally attractive by passing off a rosy red. It appears to be hardy. This *Heloniopsis* is a native of Japan.

Sunnymead, Dumfries.

S. ARNOTT.

### EUCOMIS PUNCTATA.

THIS is one of the quaintest bulbs for the autumn flower garden that I know of, and is well worth growing. For several years I grew it only in pots, thinking it unsafe to leave it out all the winter, but having more than I could well accommodate, I planted several out in a sunny border, where they have proved quite hardy and more satisfactory. In pots the flower-stems have a habit of curving about somewhat, but in the border they come up straight and strong, and are more effective. The flower-spikes reach nearly 3 feet high, and are crowded with whitish flowers spotted with small crimson spots, the stems



A BEAUTIFUL LITTLE HARDY PLANT (*MERTENSIA PRIMULOIDES*). (About natural size.)

are speckled with brown. In good clumps they are really effective.

T. J. WEAVER.

### TROPICAL BEDDING EFFECTS.

SOME of the many plants that give a tropical effect in our beds are not delicate, notably the Japanese Maize (*Zea japonica* and the beautiful *Z. gracillima*), but the majority of them should not be put out until June. There is great charm about Palms in the open, and, while large specimens are, of course, most handsome, quite small ones may be used at intervals all over a bed, say, of *Verbenas* or *Violas*, for a new and beautiful show.

The best way to treat the large Palms is to sink them in their pots, but the small subjects will

not take harm if turned out, and repotted for the conservatory again in early October. *Dracena indivisa* is seldom used in beds, yet when plunged thus it thrives grandly, benefiting by the summer rains. A few *Dracenas* set at intervals over a large bed of scarlet *Geraniums* will quite do away with the common-place appearance of these flowers. The over-tall, or "leggy," Palms and *Dracenas*, that are not much appreciated in the greenhouse when flowering plants are plentiful, give a noble effect used as centrepieces to beds, if well surrounded by semi-tall subjects, such as *Nicotianas*.

Varieties of *Ricinus* are very stately, none more so than *R. Gibsoni*, the foliage of which is so richly coloured. Other beautiful Castor Oil plants are the bronze-green *R. barbonensis* arboreus, that grows to a height of 5 feet, the purple-leaved, black-stemmed *R. Cambodgensis*, another 5-foot grower; *R. zanzibariensis*, which is several feet taller; and the variety *R. zanzibariensis* *enormis*, the individual leaves of which are often 3 feet across. The rapidity with which these plants grow requires to be believed, and they attract much attention when, as autumn advances, they display their peculiar fruits.

An exquisite flowering plant of tropical appearance, with Orchid-like flowers, is *Hedychium gardnerianum*; this can be bought in pots, and will thrive in the lawn beds, offering a finely novel show.

*Cineraria maritima*, *C. acanthifolia*, *Beet*, and *Coleuses* are good accompanying foliage plants for the giants already mentioned. *Aspidistras*, both plain and variegated, may also be safely employed, and varieties of *Physalis* are useful as well.

The Blue Gum (*Eucalyptus globulus*), *Eucalyptus Amygdalus*, *E. oocifera*, which is smaller, *E. Gunnii*, of symmetrical bush shape, and *E. cordata*, will all succeed, and add greatly to the summer beauty of flower-beds. They seem to me to be singularly attractive when used with vivid scarlet and yellow *Cannas*.

*Abutilons* invariably please out of doors. There is no need to plunge these, for they enjoy more root room. A truly magnificent bed I once saw was filled with *Abutilons*, *Coleuses*, double white *Begonias*, and *Tuberoses*. The last were plunged, of course. They must not be put out until the flowers are formed and about to open. *Daturas* are tropic-suggesting flowering plants; all are fine, but *Datura suaveolens*, the white *Brugmansia*, is perhaps the most beautiful of all.

*Amaranthuses* should be lavishly employed; whether we choose to represent them by *Amaranthus bicolor ruber*, the many-tinted tri-color splendens (Joseph's Coat), or the graceful *salicifolius*, we are certain to earn praise.

*Celosias plumosa* and *Thompsoni* can also be confidently recommended, while the Cook's-combs will flourish except in damp, cold places.

It must be remembered that all of these plants, the Palms and *Dracenas* excepted, require a good deal of manure in the soil. If this is lacking they will not thrive, though something may be done to improve matters by a good thick mulch of manure, covered in by loam and leaf-mould to prevent unsightliness.

E. J. DUNHAM.



## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**P**RUNING THE PEAR TREE.—The Pear, as a rule, produces more young shoots and blossoms on its branches in spring than can be properly developed, and it is to release it of this unnecessary burden and help it to produce better fruit and more fertile branches that disbudding is resorted to. We will take the



SIDE BRANCH OF PYRAMID PEAR TREE IN GROWTH.

previous year's main shoots first. These will very seldom show any blossom-buds the first year, although occasionally a few are formed at the extreme ends of the shoots, and they should be allowed to bear fruit, as usually it is of excellent quality. These young shoots will vary in length from 12 inches to 18 inches, and will, when breaking into growth in spring, produce from eight to twelve or more small shoots. Five will be quite enough to furnish spurs for this length of shoot for the following year, therefore they should be reduced to this number, and so that they are equally distributed the whole length of the shoot. Spring and summer pruning possess one great advantage over winter pruning, because then it is impossible to be in doubt as to which is a flower-bud and which is a wood-bud. Wood-buds on the main branches are also usually produced in superabundance. Numbers of these will cluster round the blossom-buds, and should in the first instance be reduced by disbudding to three at distances apart of 6 inches to 8 inches all along the branch, afterwards reducing them to two if any tendency to overcrowding is observed. The shoots from these wood-buds should be allowed to grow freely until about the middle of July, by which time they will have attained almost their full length; then they should be cut back to within six or seven buds of their bases. (Terminal shoots, or those wanted to fill any vacant spaces, should be retained their full length.) Cutting back the shoots will help the development of the fruit-buds at their bases, and also exposes the tree and its crop of fruit to more air, light, and warmth. All subsequent shoots that may form should be stopped at the fourth leaf.

*Pyramidal Tree in Third Season's Growth:* w, Point of cutting back maiden tree 1 foot from ground; x, point of second pruning, four side branches and a leader being reserved the year following pruning; y, point of stopping, as soon as 12 inches length attained; z, growth from uppermost bud again pinched, if making more than three or four joints; a, terminal growth resulting from second pinching, say early in August; b, side growths pinched after first stopping of leader, and stopped at third or fourth leaf if making more growth. This pinching enables the worker to dispense with winter

shortening of the leader. The side branches are also pinched at 6 inches to 8 inches when necessary to preserve the symmetry of the tree (see side branch), the first tier of branches is shown forked, with spurs on the two-year-old wood, so that fruit may be had in the fourth year. Side branch in growth: c, Extension growth stopped; d, side shoots shortened to three leaves, not counting small basal ones; e, spurs.

*Ferns in the Conservatory.*—Here, of course, we have ampler room for our plants, but also different conditions. Most conservatories are built for flowers, and hence placed to get as much sunshine as possible, and in such we find the Ferns usually either ignominiously dumped under the staging or stunted and out of condition by uncongenial baking. The ideal fernery under glass never sees the sun at all; it is a deep ravine, as it were, with a glass roof. However, few of us being millionaires, we must do with what we can get, and hence if we have a conservatory attached to a house and facing north, a large part of it will have sufficient shade from the house itself, and the balance we can shade by screen so as to get at any rate within measurable distance of our ideal. The prettiest way of dealing with a fernery of this class is to build up rockwork within it, broken up by red-tiled paths in any design that permits of easy access to all the plants in the house. This is most essential;



PYRAMID PEAR TREE IN THIRD SEASON'S GROWTH.

plants out of reach invariably become the lurking-places of vermin; or sooner or later get overgrown and neglected. Experience, however, has taught us that rockwork under glass is very apt in time to harbour vermin, and that, consequently, substantial staging and pot culture are far

preferable. Shifting is easier when growth necessitates it, and in many ways the less attractive appearance is compensated for by greater convenience. Slate shelves, covered an inch or so deep with cinders or ashes, are better than wooden ones, as the soil in pots standing on porous material is less apt to get sour. For hardy Ferns no provision for heating in winter is necessary; they are all the better for a thorough rest, and if excited into growth by warmth before their time become weakly in constitution and liable to vermin. In the autumn those species of Ferns which are deciduous—that is, are not evergreen, but die down for the winter—create, of course, considerable gaps, but as other species are quite evergreen, a little rearrangement rectifies matters. It must be borne in mind that only the fronds die, the plant is only asleep and still has need of water, though to a less extent. To allow the soil in the pots to become dust dry is simply to kill the plants within.

*Ferns in Frames.*—Ferns can be grown well in frames in two ways, either in pots on shelves, on a tiled bottom, or planted in a leaf-mould bed upon which the frame is merely set. The lights must either slope toward the north or north-east, or be shaded from too hot sun. A very good plan is to dig out a sufficiently large hole or trench, pile the soil up on the south side so as to make a rockery facing south, suitable for alpine plants, and then put leafy compost in the bottom of the excavation. Plant the Ferns and put on the lights at a steepish slope towards the north; the earthy bank keeps the frame cool, and can be retained in place by roofing slates. In such frames beautiful collections of Polypodies, Blechnums, Spleenworts, and Hart's-tongues can be grown to perfection, but naturally the tall-growing Male Ferns, Lady Ferns, and Shield Ferns require too much head-room. Here again the plants may be bedded in pots sunk in Coconut fibre, provided this be changed from time to time.

## THE BEGINNER'S FRUIT GARDEN.

*Melons in Frames.*—Well-flavoured Melons cannot be grown without heat, though, as the season advances, the sun will do some of the work. Make up the hot-bed with a mixture of stable manure and tree leaves if possible. Any garden refuse that will ferment and give out heat may be mixed therewith to increase the bulk. It is important for the materials to be thoroughly blended and turned two or three times after the heat rises, to drive off some of the rankness. If this is not done the bed will be too hot at first and then rapidly cool, and the Melons fail. As soon as the fermenting materials are sweetened by turning and intermixing, make up the bed 18 inches to 2 feet wider and longer than the frame, building it up with straight sides, and make firm by treading or beating with the fork as the work proceeds. Place some sods of turf, grass side downwards, where the mounds of soil are to be placed, and cover the bed entirely with good soil. In the centre of each light make a firm bed of good loam, as Melons do best in a firm bed, and the fruits sets better. As soon as the heat is steady, set out the plants—one in the centre of each light—and press the soil down firmly. If the condensed moisture which hangs about the frame is clear, it will be safe to put out the plants; if it is thick and muddy, wait a day or two. If the plants are raised at home, the seeds should be sown in heat either singly in small pots or in a pan in the

propagating case, and potted off singly as soon as they are up and well rooted. We have known the seeds planted in the bed and covered with bell-glasses, and they did well, and this plan may be safely adopted where there is no warm house or pit to raise them in. As soon as the plants are well established and have made two rough leaves, pinch out the terminal bud, and the shoots which result from the pinching should be pegged out towards the corners of the lights. But previous to doing this add more loam and press it down firmly. If the loam is of good quality and rather heavy, no manure should be mixed with it; when the plants want nourishment liquid manure can be given. Keep the night temperature from 65° to 70°. If the bed is well built and warm coverings are used at night, there will be no difficulty in doing this. Melons should not require shading, as it only weakens the foliage. Give a little air at the back of the frame early in the morning, and increase this as the sun gains power during the day. Close after sprinkling with water which has stood in the sun all day by half-past three or four o'clock when the days lengthen. As the main shoots extend to the corners of the light, laterals will spring out from each side, and on these the fruits will appear with female blossom at the end. The male flowers appear separately, and when the flower opens at the end of the fruit, pollen must be taken from the male flowers to fertilise the female blossoms. This is a simple operation, and should be done about the middle of the forenoon, when both flowers are in a suitable condition. The gardener takes off the male flower, removes the corolla, and inserts the centre bearing the pollen grains within the flower at the end of the fruit. As far as possible set fruits enough for a crop within a day or two of each other. If one fruit takes the lead, the others will not swell. From four to six fruits are generally considered sufficient for a crop from each plant. As the fruits swell, lift them up from the ground on tiles or slates, with the nose end to the north. Discontinue the manure-water when the fruits are nearly full grown, and as they begin to change colour give no more water at all, or the flavour may be injured. Keep the growth thin, but do not remove any of the main leaves, as they are the most important factors in promoting growth. Pinch all laterals as soon as they show fruit. If the ventilation is right, the foliage will be strong and leathery, and there will not be much trouble with red spider, which is the only insect to be dreaded. Canker, a fungoid disease, is sometimes induced by too much water and a low temperature with deficient ventilation. It attacks the main stem, and if not stopped will kill the plant. The best remedy is quicklime and dry, dusty charcoal. Place a slate under the diseased part and completely cover it with the lime and charcoal mixture, renewing it occasionally when it has lost its power. Good varieties for either frame or house are: Royal Sovereign, Blenheim Orange, Read's Scarlet, and the Countess.

*Vines for the Greenhouse—Watering.*—If the drainage is right it is not easy to over-water Vines during summer, especially inside borders. If the outside is covered with manure the water required there will be less. In some seasons scarcely any will be required. When the Vines are bearing heavy crops they should have some stimulant in the water, especially after the Grapes are thinned, as that is the best time to feed. Almost any good artificial manure may be used. Most of the manure merchants supply Vine manures, and these may either be given in the water or sprinkled over the borders and watered in. Several applications of this kind may be made.

*Ventilation.*—This is very important. It is a good rule during summer to give a little air along the ridge as soon as the sun strikes the glass roof in the morning, and if there are plants in pots in

the house it will be safer, after May, to leave a little crack of air on all night, and extend this early in the morning. Where there are plants in the house, they will probably cause sufficient moisture in the atmosphere without much damping of floors or paths. The thing to avoid is the creating of a stuffy atmosphere. Where possible close the house for a short time in the afternoon to shut in a little sunshine, if it is only for a couple of hours, as this warmth extends the bunches and benefits the foliage; and when the moisture has been dispersed, towards the evening, a small crack of air may be given to set up a gentle circulation. Theinery greenhouse is usually a compromise, but with care and a free use of common-sense there need be no sacrifice of either plants or Grapes. Of course, after May sets in, a good many of the plants may go outside, and the Vines may thus have a better chance.

*Pruning.*—We have already referred to the young growth and its summer management. The winter pruning should be done as soon as the leaves fall, and spur-pruning is the method usually adopted. This means cutting back to a good plump bud near the base of the shoot. Black Hamburgh, Foster's Seedling, and Alicante show plenty of bunches if pruned back almost to the large bud. It is well, after a few years' bearing, to lead a young shoot occasionally from the base and take out an old one.

## THE EDITOR'S TABLE.

### THE FIRST OF THE SWEET PEAS.

The first Sweet Peas this year have come from Mr. William Crampton, The Gardens, Highfield, Hipperholme, and they were finely grown. Our correspondent sends the following note: "I am sending you a few flowers of Sweet Peas for your table. They were sown the last week in September, and grown as cool as possible, without freezing all through the winter. Five seeds were sown in a 3-inch pot, and potted into 7-inch pots when they began to grow freely in the spring. They have not been potted since, but have flowered beautifully since the last week in April, and look like going on for some time. I have fed them liberally with liquid of various sorts and soot water. Those that have done best are: Dorothy Eckford (splendidly), Prima Donna, King Edward, Lady G. Hamilton, Navy Blue, Hon. Mrs. Kenyon, Mrs. Walter Wright, and Miss Willmott, the best of all. I also enclose a bloom of the new Marguerite Queen Alexandra, mentioned in THE GARDEN of May 26. It is only half developed in the centre. I have had some quite double. It seems to come more double a little later on from young plants."

### MECONOPSIS CAMBRICA FL.-PL.

Mr. Watts sends from Armagh a gathering of this beautiful Meconopsis, which for colour is one of the most striking flowers in the garden at the present season. The flower is perfectly double, and intense orange red. Our correspondent writes: "Meconopsis cambrica fl.-pl. is now in wonderful bloom. I raise numbers of seedlings—many come single, both yellow and orange. Some of the latter are rather pretty." Mr. Watts also sends flowers of the early Pea (*Lathyrus Sibthorpii*) and *Cheiranthus mutabilis*.

### HABRANTHUS PRATENSIS.

We are pleased to see flowers of this beautiful rare bulb from Mr. Osgood Mackenzie, Tomnaig, Poolewe, N.B. With them was received the following note: "Habranthus pratensis does well here in the open under a south wall. It has lived some twenty years, and has increased in size a little, and blooms most years. This year the clump has three spikes with two and three blooms on each spike; the stems are from 1 foot

to 15 inches high. Rare bulbs do very well here, such as *Watsonia marginata*, *W. Ardernei*, *Sparaxis pulcherrima*, *Schizanthus coccinea*, *Tigridias*, *Crinum capense*, *Scilla peruviana*, and the *Agapanthus*, all quite unprotected. The *Agapanthus* blooms well outside here."

### CALCEOLARIA VIOLACEA.

Mr. J. Rundle sends from The Gardens, Bosahan, St. Martin, Cornwall, flowers of this beautiful *Calceolaria*. They are larger than usual, and the colouring seems more refined. We lately noticed a plant in full flower in Mr. James's garden near Burnham Beeches, so that it will succeed elsewhere than in Cornwall when suitable conditions can be provided for it. Our correspondent writes: "The plant has stood several winters without injury, but would require protection in colder parts of the country. It does best if planted in a partly-shaded position and sheltered from cutting winds. Plant in a mixture of peat and loam, and keep the soil moist during summer to encourage new growth. It forms a bush about 5 feet high and as much through."

### THE MOURNING IRIS FROM IRELAND.

Sir John Olphert, C.V.O., sends from Ballyconnell House, Falcarragh, County Donegal, immense flowers of the always-interesting Mourning Iris (*I. susiana*), with the following note: "Having seen in THE GARDEN that a gentleman from Yorkshire had sent you blooms of *I. susiana*, I send two blooms from plants outdoors on a raised bed facing south, and quite unprotected. There are twelve blooms open. The garden is about a mile from the Atlantic."

### IMPROVED FORM OF THE BIRD CHERRY.

Mr. Gumbleton sends from Belgrove, Queens-town, Ireland, flowers of a very beautiful and improved form of *Cerasus Padus*. The racemes are not only very long, but the flowers are set thickly together; their purity of colour is also noticeable. It is a great advance upon the type.

### CESTRUM SANGUINEUM.

Mr. Gumbleton also sends flowers of an improved form of *Cestrum Newelli*, Lemoine's *C. sanguineum*. It is a beautiful flower, deeper in colour, and more free-blooming. They were gathered from an open-air wall.

### THE FIRE BUSH AND SUTHERLANDIA.

Mr. Fitzherbert sends from Kingswear, South Devon, flowers of the Fire Bush (*Embothrium coccineum*) and of *Sutherlandia frutescens*. It is mentioned that the former is "now a glorious sight. The bush of *Sutherlandia frutescens* has been a sheet of scarlet for the last five weeks."

### CARNATION QUEEN ALEXANDRA.

Mr. Ravens, Elliott Road, Bromley, Kent, sends a flower of a very promising white Clove Carnation, Queen Alexandra. The flower is strongly scented, and should prove useful for cutting.

### A NEW FORGET-ME-NOT.

Flowers of a new semi-double Forget-me-not come from Mr. George W. Kent, The Gardens, Brooklet Hall, Hatfield. They are individually pretty to look at, and the colour is a rich blue.

### FLOWERS FROM DUBLIN.

Mr. Greenwood Pim sends from Monkstown, County Dublin, two interesting flowers—*Dimorphotheca Ecklonis* and *Convolvulus Cneorum*—with the following welcome note: "I enclose for your table two interesting greenhouse shrubs, which I find do very well in a sunny border, viz., *Dimorphotheca Ecklonis* and *Convolvulus Cneorum*. The first-named always closes in the dark, but is very pretty in sunlight. When out of flower no one would ever dream that the *Convolvulus* was a *Convolvulus* at all, while its

grey foliage distinctly betrays its birthplace under a southern sun, where all green things become grey. The *Dimorphotheca* strikes freely from cuttings, so one may easily get a stock of it."

#### FOUR INTERESTING FLOWERS.

Mr. Higgins sends from The Gardens, Rûg, Corwen, North Wales, the following flowers:

*Gypsophila elegans*, the seed of which was sown in August and the plants kept in a cold house, the temperature not lower than 37°.

*Nemesia strumosa Suttoni*, the seed sown in the first week in January. It is a useful pot plant at this period, and at once attracts attention in the conservatory.

"*Leptocoryne Stillmani* was," writes Mr. Higgins, "sown at the same date as the *Nemesia*, and there is nothing finer in the way of colour at this time of year. It is a good pot plant, and is worthy of a trial." Mr. Higgins also sends a bloom of

*Marguerite Queen Alexandra*, which is excellent now. The cuttings were struck in August. It is most interesting, as so many different forms appear on the same plant.

#### PANSIES IN VARIETY.

Mr. R. T. Howell sends from North Lodge, Tingrith Manor, Woburn, Beds, many flowers of a very charming race of Pansies. They were picked from plants, the cuttings of which were put in during late October and planted out in the middle of April. Mr. Howell writes: "I always keep all buds picked off until the plants are established, and find they are all the better for this practice."

#### PANSY MRS. SCOTT.

Mr. Davies, The Gardens, Dunston Hall, Stafford, sends flowers of a very pretty white yellow-eyed Pansy called Mrs. Scott, and Sutton's Perfection Blue Forget-me-not, which is a beautiful dark-coloured blue flower, large, and hiding the foliage. It is a variety to make a note of for the spring and early summer garden.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**R**HODODENDRONS.—White Queen and Ascut Brilliant are a pair of beautiful Rhododendrons flowering simultaneously about the middle of May, generally escaping the late frosts. If left to take care of themselves they seldom flower profusely in consecutive years, but fine displays are usually made in alternate years. Of course it is natural for them to ripen seeds, but it takes so much vigour out of the growth of the plant that it cannot form flower-buds at the same time. This is remedied by picking off the seed vessels as soon as the flowers are faded. The vigour of the plant is thus concentrated in the development of flower-buds for another year. Another important point in their culture which is frequently overlooked is the need of moisture. All Rhododendrons have extremely small fibrous roots situated so near the surface of the soil, and especially in the case of small plants which have not foliage enough to shade these roots, that they are injured by the sun shining direct on them. It is very important to protect these roots with a top-dressing of some kind which has a tendency to conserve the moisture in the soil. Peat is not always available, so half-rotted leaves or Coconut fibre are sometimes used, but I find the short grass as cut from the lawns answers this purpose admirably. I use it largely as a surfacing for all kinds of shrubs

to keep out the drought, thereby minimising to a very large extent the labour of watering. The slight manurial properties of the decaying grass are also beneficial, the foliage of the plants thus treated assuming a good green colour. This same treatment is also applied to all kinds of Azaleas, and they never fail to flower abundantly every year.

If the weather is dry, watering will be necessary frequently. Use the hoe regularly, so as to loosen the surface around all growing plants and to keep down weeds. Lawns should be frequently mowed and rolled. The grass should be kept short, so that it dries quickly after showers and so does not prevent games being played.

G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**MILTONIA VEXILLARIA**.—With few exceptions this beautiful species has passed out of flower, and should now be given a slight rest by being placed in a cooler and more airy atmosphere. The coolest end of the *Odontoglossum* house is a suitable place for them for the next two months, providing they are kept free from the overhead syringing which is necessary for *Odontoglossums* at this period of the year. They should be kept moderately dry at the root during this resting period, as the least excess of water will often cause the pseudo-bulbs to decay and sometimes destroys the whole plant; just sufficient to keep the pseudo-bulbs in a plump condition is all that is necessary. About the beginning of September they may be taken back to their growing quarters (the intermediate house) and given rather more generous treatment.

**DENDROBIIUMS** of the *thyrsiflorum* and *densiflorum* section are now starting into growth. The necessary repotting or resurfacing should be attended to as soon as the young roots emerge from the bases of the new growths. It is not advisable to shift any that are doing well; all they require is some fresh sphagnum pricked in the surface after the decayed material has been removed, but any plant that shows signs of deterioration should be turned out of the pot and given a fresh start. The pots should be crooked to quite two-thirds of their depth, and the plants should be potted firmly in equal parts of Polypodium fibre and sphagnum moss with a sprinkling of small crock and sand added to ensure porosity. Keep the plants on the dry side until the roots get a good hold in the new compost, when they may be given a more generous treatment. During their season of growth they require the conditions of a plant stove, but when the growth is completed the plants should be removed to a cooler and drier atmosphere, and the supply of water should be diminished. In the warm house such plants as *Vanda suavis*, *V. tricolor*, and the many varieties of *Aerides*, *Saccolabium*, *Angraecum*, &c., are rooting freely, and should be given more moisture at the roots than hitherto advised, and whenever it is possible these new aerial roots should be trained into the composts from which the plants will derive great benefit. These aerial roots are often eaten by

**COCKROACHES**.—It is a difficult matter to exterminate them, but phosphorus paste on thin slices of bread placed about the plants will keep them in check to a great extent. If the plants are seriously affected by them they should be allowed to become dry and then dipped in a bucket of water for a few seconds; the pest will soon come to the surface for air, when they may be easily captured.

**OTHER INSECT PESTS** increase very freely at this period unless the cultivator strives to keep them in check. During the process of watering the plants should be thoroughly examined, especially the *Cattleyas* and *Lælias*, as a soft white scale makes its home at the base of the old pseudo-bulbs underneath the old sheaths and along the rhizomes. Unless these are kept in check they will retard the progress of the plant

considerably. *Cypripediums*, *Dendrobiums*, and *Odontoglossums* are usually attacked by thrips, but these may be easily avoided by fumigating with XL All, according to the directions, every third week.

W. H. PAGE.  
Chardwar, Bourton-on-the-Water.

### FRUIT GARDEN.

**STRAWBERRIES**.—In many gardens these will be showing colour, and should be bedded with litter or straw before the fruits have had time to get soiled with grit or the soil during heavy rains. Where a choice of materials is at hand, perhaps the most suitable is clean Wheat straw, although, failing that, several suitable mulchings may be used with equal efficiency. Mid-season and late varieties must be kept free from weeds by hand-weeding or hoeing previous to applying the litter. It will be found necessary to protect the ripening fruits from birds in country gardens as soon as they begin to colour, as the birds sometimes attack the fruit before it is coloured, especially on early borders, when the early Strawberries are the only fruits to be found out of doors. Late varieties do not suffer to the same extent, as the birds have by that time a choice of fruits, and will generally be found to have transferred their unwelcome attentions to the Gooseberry quarters. For protection from birds old herring nets suit the purpose very well. The netting may be laid on the beds without other support than that afforded by the plants themselves, but it is more convenient if it be fixed so high that a person of ordinary height may gather the fruits underneath without the removal of the netting. Wooden posts with rails or iron posts and wire make an equally suitable framework for supporting the nets. Young plantations of Strawberries that were put out during April are now making rapid progress, and any flower-stems that may yet appear should be kept picked off to enable the plants to form as vigorous crowns as possible, for on this depends much of the success of next season's crop. Where it is proposed to make fresh plantations in autumn no time should now be lost in preparing the runners for that purpose. An estimate should be made at this date of the number of plants required for the new beds, the pots being prepared by placing a few partly decayed leaves in the bottom and filling them up with a mixture of loam and spent Mushroom bed manure. The runners may be fixed in the pots by a pebble or pegs made from worn-out Birch brooms, placing the pots in small groups for the convenience of watering. The runners should be stopped immediately beyond the one that is layered, and as soon as they are well rooted they should be severed from the parent plant and placed in a shady position for a few days and kept well supplied with water.

The ground they are to occupy should be prepared in good time, so that they can be planted before the roots become matted in the pots; deep cultivation and liberal manuring must be practised to ensure success. Where a stock is required for forcing, the runners should be prepared in the same way as recommended for autumn planting out of doors, and should be potted into their fruiting pots as soon as they have become well rooted. For a potting soil employ good loam with a 6-inch potful of bone-meal and the same quantity of soot to each barrowful of soil. When potted the plants should receive a good soaking of water, and be placed where they will get full exposure to the sun. If the plants are to fruit early, 5-inch pots will be found large enough, but for mid-season and late forcing 6-inch and 7-inch pots may be used.

Strawberry culture, especially regarding the best varieties to grow, is perhaps governed by local conditions more than any other fruit. For early forcing, however, Royal Sovereign seems to be a general favourite, and is extensively grown for that purpose; its fruits attain a large size, and on that account alone it retains its popularity. It is, however, rather soft in texture for packing

to travel any distance by rail. Sir Joseph Paxton combines in size, colour, quality, and the firmness of the fruits all the best points desirable for a Strawberry that forces and travels well.

**MORRILLO CHERRIES.**—As this fruit is frequently grown on a north wall, where it thrives very well, its roots will not suffer much from drought; but the crop may be considerably improved if an artificial fertiliser is applied on the surface and lightly forked in.

THOMAS R. WILSON.

Glamis Castle Gardens, Glamis, N.B.

### KITCHEN GARDEN.

**TURNIPS.**—A sowing of Red Globe Turnips for use in autumn should be made now. A situation with partial shade is the best place at this season; but if such a position is not obtainable, two or three thicknesses of netting should be used to cover the young seedlings until well into rough leaf. Thin with a draw hoe to 7 inches or 8 inches apart when ready, afterwards singling out with the fingers to 8 inches. Give frequent waterings and occasional dustings with wood ashes and soot to ward off attacks of the fly. Turnips being gross feeders, two or three light dressings can be hoed in after thinning. Nitrate of soda at the rate of half a pound to a rod of ground mixed with soil and hoed in will be found to give a satisfactory result. Give earlier crops copious waterings when the ground is dry. If the roots of earlier sowings are fit for use and are not wanted immediately, they should be pulled and stored in soil in a cool place, for if left too long in the ground at this season the flesh soon gets hot and stringy.

**PEAS AND SPINACH.**—The date for the last sowing of Peas is always more or less of a hazard, but it is not often that Peas sown much after this date give very satisfactory results, so much depending on the weather. I had last autumn four fine rows of Peas in bearing and in bloom, sown June 14, spoilt by the frosts between October 16 and October 25, on which nights we registered varying from 6° to 10° of frost. Veitch's Autocrat and Sutton's Latest of All are, I think, two of the best varieties in cultivation for autumn use, being of medium height, robust growth, and they resist mildew well, which is one of the greatest scourges that trouble late Peas. Ne Plus Ultra is a good late variety, and does well in some parts; but it is a tall grower, which is a disadvantage. A sowing of an early variety might also prove useful. Attend to sticking and mulching earlier sowings when necessary. Continue with sowings of Spinach between the rows; any that may be running to seed should be cut down and left on top of the mulch.

**PLANTING.**—Advantage should be taken of all showery and dull weather to plant Brussels Sprouts, Cauliflowers, &c. Brussels Sprouts require a long season of growth and plenty of space for the development of the sprouts. If too close there is plenty of leafy growth, but the sprouts are loose and soft; 3 feet between the rows and 2½ feet from plant to plant is a good distance. Plant firmly. The space for Cauliflowers varies according to the variety. For the Walcheren 2 feet by 18 inches is sufficient, but Autumn Giant and Autumn Mammoth should be allowed 6 inches or 8 inches more each way. Early Dwarf Savoy may be planted 18 inches by 12 inches. All these crops require rich well-manured ground. If the weather should be dry, frequent waterings will be necessary. It is not too late to make a sowing of Kales, &c., for late planting. In many gardens Kales have to follow Peas or second early Potatoes, which may not be off the ground till the end of July, or even into August. A sowing of London or Rosette Colewort should be made now. I always make at this season a sowing of Ellam's Dwarf for use in October. Where Cabbages are much in demand freshly-grown heads are much esteemed in early autumn.

J. JAKES.

Bryanston Gardens, Blandford.

## PRIZES FOR GARDENERS. JUNE.

### SMALL FLOWER GARDEN.

A First Prize of FOUR GUINEAS,  
A Second Prize of TWO GUINEAS,  
A Third Prize of ONE GUINEA,  
And a Fourth Prize of HALF-A-GUINEA

are offered for the best essay upon "How to Lay Out a Flower Garden of not more than Half an acre in Extent."

A simple plan to show the proposed design, and also a list of the plants used, must be given. The remarks must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The answers must reach this office not later than June 30. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

### FLOWER GARDEN.

**DAFFODILS DETERIORATING (Miss A. K.).**—Many Daffodils naturally deteriorate when planted in the grass. It is therefore necessary to carefully select the best sorts, those that have proved themselves to be free flowering. For open spaces, among the best are Emperor, Empress, Queen of Spain, Sir Watkin, Stella superba, Barri conspicuus, odoratus, Poeticus ornatus, and the old double yellow Telamonius plenus. For more shady places there are Countess of Annesley, obvallaris, pallidus praecox, Golden Spur, and the various forms of Poeticus. Crushed bones should be used when planting Daffodils, a little being placed in each hole with the soil, and it is also the best manure for top-dressing afterwards, being applied at the rate of 40wt. to the acre. On poor and sandy soil sulphate of potash is also recommended to be sprinkled annually over the surface of the ground at the rate of about 20wt. to the acre. Stable manure is not recommended for use, as the ammoniacal properties of it are considered injurious to Daffodils.

**DOUBLE POLYANTHUS (Mrs. D.).**—The flowers sent certainly are those of the double-laced Polyanthus. The variety is rare so far as its distribution in gardens is concerned, but it is no novelty, as we have known it for very many years. The flowers are densely double, of a

bright buff colour and finely edged pale yellow. Double Polyanthus are rare, the only other we have met with being a dull crimson known by the name of King Theodore. Like yours, however, it is seldom seen. Another rather scarce Polyanthus is the single blue-flowered sort known as Primula elatior cerulea, flowers small, and of a pale blue colour. All these varieties can be perpetuated only by division, and that is best done now. If plants be lifted, carefully divided with a knife, and with some roots attached to each piece, be replanted in good soil in a cool shady place, or put into pots and kept in a cool frame, shaded for a time and watered, new roots are soon made, and good leaf-growth follows.

**PLANTS UNDER TREES (Regulus).**—Very few plants will grow under Scotch Fir, except such things as the Japan Knotweed (Polygonum cuspidatum), Male Ferns (Asplenium Filix-mas), and Solomon's Seal. These will all flourish if given a good start, by well digging the ground after adding a thick layer of leaf-soil or well-decayed manure, and by keeping them well watered for a time after planting. When once established Solomon's Seal will stand a lot of drought and furnish the ground very effectively for the spring and summer months, lasting well into autumn. For winter, Ferns should be planted to produce a similar effect. Others suitable for planting in such positions may include the Day Lilies (Hemerocallis) of various kinds, Carex pendulus, Hydrophyllum virginicum (a shade-loving plant near the Borage family), Ruscus aculeatus, and the Funkias, which are handsome foliage plants, the best being F. sieboldiana and F. ovata. Epimedium rubrum and E. alpinum might also be tried, also Ophiopogon japonicus.

**LILY OF THE VALLEY OUTDOORS (B. E. M.).**—The Lily of the Valley likes a partially shaded position and a rich soil with which a fair amount of leaf-soil is mixed. You should plant single crowns about 6 inches apart. During the growing season the plants should occasionally receive waterings with liquid manure. In three or four years they will have become crowded; they should then be lifted and a fresh bed made with the finest of the crowns. We do not think you would be able to grow Lily of the Valley out of doors for profit, for as a rule the bells are small and the spikes short, while there are plenty of other flowers out of doors at the same season. The only way in which you could grow Lily of the Valley with profit would be under glass, forcing them into flower early in the year. The crowns should be potted as soon as received about November, or placed in large boxes with some fine soil round about them and the tops covered with cocoanut fibre refuse. A high temperature is necessary, and plenty of moisture for the earliest supplies. Successive batches could be brought on somewhat less expensively. Should you wish for further particulars about growing them under glass, write us again. We know of no book devoted to the subject.

**CARNATION LEAVES DISEASED (Perplexed).**—We do not see of what use it would be to syringe your Carnations with an insecticide, as apparently the damage is not done by insects. It is quite probable that you have watered them too much. Carnations freshly planted need little, if any, water in the spring. The root-fibres are delicate, and an excess of water causes them to decay; neither should you water them overhead in the spring. Without seeing the leaves we cannot definitely say what is the matter with them.

**LITHOSPERMUM PROSTRATUM (Regulus).**—This plant may be readily propagated by means of cuttings during the summer months, in June or July for preference. The younger growths should be selected and made into cuttings between 2 inches and 3 inches long. The compost used should consist of equal parts of loam, leaf-soil, and sand, with a thick layer of sand on the surface of the pot added. After the cuttings have been inserted firmly, the pot should be placed in a frame which is kept close until they are rooted, or a bell-glass would answer the same purpose, but they must be kept well shaded from the sun. As soon as the cuttings are rooted they should be potted off singly, using the same compost as before, and keeping them in a close frame until they are well rooted in the fresh soil. They may then be gradually hardened off by admitting more air or moved into an open frame,



Plant out in their permanent position in the following March, selecting a well-drained situation with an eastern aspect. Sandy loam and leaf-soil suit this plant admirably.

### THE GREENHOUSE.

**REPOTTING AZALEAS (N. T. L.).**—The best time to repot Azaleas is directly the flowers are over, any straggling shoots being at the same time shortened back. The most suitable soil is good fibrous peat with a liberal sprinkling of rough silver sand. In order to keep the plants in health the operation of potting needs to be carefully carried out, far more so indeed than in the case of such things as Fuchsias, Pelargoniums, &c. In the first place the pots must be quite clean and thoroughly drained by means of broken crocks, putting one large piece with the concave side downwards over the hole in the bottom, then place a number of smaller pieces therein sufficient in fact to make a level surface. Over this put a layer of the roughest peat in order to prevent the finer portions of the soil from working down into the drainage. The fresh pot for the reception of the plant must be at least 1 inch (and in most cases 2 inches will be better) wider than that in which the plant is now growing. Before potting, the old plant must be turned out of its pot and the crocks in the bottom portion of the ball of earth removed. Then with a smooth pointed stick loosen the fine fibrous roots around the ball to a depth of about a quarter of an inch. In repotting, care must be taken that the ball of earth is not buried deeper in the soil than it was previously, and the soil must be pressed down very firmly, using a thin piece of wood for the purpose. Before potting, see that the old ball of earth is moist, as if dry the water will not penetrate it, and the plant will suffer afterwards. After flowering, the white Arabis and golden Alyssum may be trimmed over, removing all old flower-spikes and straggling shoots. They will then, if the weather is not too dry, soon start into growth, and when these young shoots are of sufficient length they will make the best of cuttings. A well-dug sheltered border is the best place for them, and if too much exposed to the sun a few Spruce boughs or something similar may be stuck in to give a little shade. Where the position is an exposed one, the cuttings may be left until the middle of August, but in a general way they will be rooted before that. When it is desired to increase these plants as rapidly as possible and in a large quantity, the young shoots when about 2 inches long may be dibbled into a cold frame, which should be kept nearly close and shaded from the sun. In this way they will soon strike, and directly this takes place plenty of air must be given, the frame, if possible, being removed altogether, otherwise the young plants will grow up weak.

### TREES AND SHRUBS.

**EVERGREENS SUITABLE FOR POTS (Stella).**—Those that may be wintered in the greenhouse and find a ready sale in the London market are Aucubas, both green and variegated, those with berries being most admired; Berberis Aquifolium, when the leaves are tinged with crimson and bronze they sell best; Euonymus japonicus aureo marginatus, E. japonicus aureo variegatus, and E. japonicus latifolius albus, much used for window-boxes as well as other purposes; Ligustrum ovalifolium elegantissimum, a golden Privet that sells well winter and summer; Skimmia Fortunei, pretty little red-berried shrub; Veronicas of sorts that need the protection of a greenhouse in the winter; and a few conifers, which in a small state make attractive pot plants. The best of these are Cupressus lawsoniana, Retinospora obtusa, R. pisifera, R. pisifera aurea, R. plumosa, and R. plumosa aurea.

**PRUNING WISTARIA (Hor.).**—With regard to the pruning of Wistaria chinensis, it is necessary to go over the plants towards the end of June,

after the flowers are over, and cut all the young wood back to within a few eyes of the old branches; that is what is meant by being spurred in. Of course, until a plant has covered all the required space so much cutting back is not necessary, as the growths are wanted for furnishing the future main branches. You can grow excellent plants of Clematis, the sorts you mention, in pots. If placed in fairly large pots in rich loamy soil containing lime, repotting will only be required every three or four years, liquid manure sufficing to keep the plants vigorous. In planting it is advisable to do away with the pot altogether. Snapdragons are strictly perennials, though usually treated as annuals and biennials. They flower well when old, but, as young plants are so easily procured, it is rarely that old ones are kept.

**CLIPPING YEW HEDGE (Amateur).**—The best time to clip a Yew hedge is in the spring, while in good seasons it is all the better for being gone over again during the latter half of August. On this occasion, however, only the long growths should be cut back, the close trimming being reserved till the spring months.

**WISTARIA (Rev. Gordon Wigham).**—You do not state the purpose for which the Wistaria is needed, but if it is required to mount up as quickly as possible do not stop it. If you require it to spread—that is, push out side branches—by all means pinch out the growing point of the shoot.

**SPRING PLANTING (J. Wallop).**—A great deal depends upon the weather experienced after the planting, and also of course the condition of the plants themselves. While the major portion of planting is, as a rule, carried out in autumn and winter quite successfully, sometimes in spring it is even more successful, but if dry, harsh winds prevail with but little rain, the mortality is oftentimes great. The Silver Fir is more risky to transplant than either of the others named by you, but if the plants have been properly handled in their nursery quarters they are not likely to suffer much.

**PRUNING CYDONIA JAPONICA (J. L.).**—To succeed with Cydonia japonica on a wall you should keep the secondary branches well cut back to form flowering spurs. It may be necessary to go over your plants two or three times between the period when the flowers fall and the end of the summer; at any rate, cut well in as soon as the flowers fade. Any summer pruning will be the pinching or cutting back of young shoots. Crataegus Pyracantha must also be treated on the spur system, all superfluous growth being cut back to the fruit during summer. By repeated stopping short spurs are soon formed, which bear flowers and fruit freely annually.

**PRUNING SHRUBS (G. E. W. H.).**—As far as one can judge by your letter the Lilacs should have given a better return of flowers this spring, and the reason of their non-flowering is in all probability owing to far too great a number of weakened shoots. We should advise you in the first place to take great care that all suckers (if any) are removed, and then the young shoots may be well thinned out in order that plenty of light and air may have access to those that are left. In carrying out this pruning the formation of a symmetrical-shaped head must be the great object aimed at, while the stout, short-jointed shoots should be left wherever possible. With regard to the pruning of shrubs in general you will find a most valuable article in THE GARDEN for May 26 (page 277).

**TRANSPLANTING EVERGREENS IN MAY (Hor.).**—Certainly May is an excellent month to transplant some kinds of evergreens, but it is going too far to say all evergreens. Early May is an excellent time to transplant Hollies, Bamboos, Evergreen Oaks, Portugal Laurels, and some conifers. The latter, however, are better as a whole done earlier. Of course, watering has to be attended to, and, should the weather be dry, the plants should be syringed overhead twice a day for the first few weeks. For the four first subjects mentioned, early May is the best possible time, just as new shoots are pushing, the next best time being early September. When transplanted in mid-winter, they have to remain in cold soil for a long period before new roots are formed, a condition which often proves fatal.

### ROSE GARDEN.

**MARCHEAL NIEL UNDER GLASS (T. W. Duncan).** We are glad to hear that you found the advice given by us last year so helpful. Evidently your plant is in a healthy state, judging from the two good growths about 2 feet from the base. These you should encourage to grow as much as possible until September, when it would be advisable to remove the ends to aid in ripening. At that time plenty of air would be beneficial, but you could not give this owing to the presence in the same house of Ferns. The growths that have flowered would be all the better if the lateral shoots were cut back close to the main growth, but the long arms we should not cut off at all. As new growths break out from the stem near the base, it may become necessary to remove

some old wood then, but at present we should let well alone, providing you have plenty of space that will enable you to open out the growths. You would do well to continue the liquid manure doses, perhaps about every ten or twelve days would do.

**ROSE GROWTHS DISEASED (Miss Willan).**—The portions of growth sent are evidently attacked with what is known as Rose tumour. These blackish swellings are the outcome of the disease, which is deep seated, and at present there is no known remedy for it. We can only advise you to remove the growths where they are affected and trust to the lower eyes to furnish new growths. The growths sent were very soft and pithy, and would not in any case have yielded very good blossoms.

**LA FRANCE ROSE NOT EXPANDING (Alice Kennedy).**—Unfortunately, last year you encouraged this very bad trait by cutting away a number of shoots and disabudding. This grand old Rose dislikes rich soil and disabudding, and you would find, by a system of let alone in the matter of pruning or at least a very moderate cutting back, and allowing the buds to remain instead of thinning them, that you would obtain many more perfect flowers. You will frequently find this beautiful Rose flourishing most grandly in a cottager's garden, where it receives scant treatment, and in the gardens of those who cultivate highly the Rose is almost a failure. Without a doubt, La France is best grown in standard or half-standard form. If you possess any standard Briars for budding this summer try some La France. The variety makes a glorious free head and yields in this way large quantities of the exquisitely formed very fragrant flowers.

### KITCHEN GARDEN.

**CELERIAC GROWING (A. N. C.).**—It is now rather late to sow Celeriac seed to obtain large plants such as you describe, although we have sown now in heat, grown on, and got heads in November as large as cricket balls. The seeds should be sown very thinly in a warm frame; then when above the soil kept near the light, and, as soon as large enough to handle, pricked out in a frame or rich border, covered with hand-glasses and at a distance of 4 inches apart. We say rich soil. This means a liberal portion of decayed manure under the roots, and the plants kept close for a few days until growth is active; but later give more ventilation, and, when the plants are large enough, plant out. Trenches as for Celery are not required; but well-enriched land, ample decayed manure for the roots, and plant in rows 2 feet apart. We draw drills, as this is a saving of labour, the watering being done more readily. The plants are lifted carefully with a small fork or trowel, each one with a ball of earth, and any sucker growths at the sides are removed, leaving one main growth. Celeriac, like Celery, is inclined to produce suckers, and at the planting each plant is given a space of 9 inches apart, well watered in as the work proceeds, and at no time should they be allowed to suffer for want of water. In late August and September feed freely. Liquid manure is most beneficial. Failing this, give assistance in the way of fertilisers; these used twice or three times a month and well watered in will produce fine roots. Such fertilisers as fish guano, soot, superphosphates of lime, Peruvian guano, and nitrate of soda are all available; but give these latter in moderation and in wet weather.

**TOMATO PLANTS UNSATISFACTORY (Rev. J. A. P.).**—We think your Tomato plants have had too much heat and insufficient ventilation. We do not think from the appearance of the leaf sent that there is any disease whatever, but weakness from the cause named. You state that only moderate heat has been given, but you may have kept the plants too close. Give more ventilation and the damping will cease. Grow the plant as strong as possible, and though not hard forced now, plants raised in strong heat take some time to build up good foliage. A check would also cause the injury, such as cold draughts, cold water, or manure at too early stages of growth.

**DISEASED TOMATO PLANTS (R. S.).**—Your Tomato plants sent have about them ample evidence of what is known as the sleeping disease (Fusarium Lycopersici), a very dangerous form of fungus, and one very difficult to combat. Happily, you have destroyed yours in the affected house. You should also remove the soil; then thoroughly fumigate the house by burning in it sulphur to destroy all spores or germs. When this disease appears the leaves become dull and droop, also the stem collapses, and shows a whitish mould. All authorities advise drastic treatment in destroying plants and thoroughly fumigating the house. How the disease is generated is not apparently known; it may come in the air, the soil, or the seed. It occasionally produces serious loss to growers in a large way. It would probably be best not to grow Tomatoes in the same house again this year.

## MISCELLANEOUS.

**BOOKS (B.).**—Odd volumes of these things are of little value. Martyn's "Flora Rustica" in four volumes, complete, is worth about 15s.

**FLOWERS FOR SALE (R. W. Acroft).**—We know of nothing you could grow on such a hot-bed as you mention with any reasonable hope of making money by selling the flowers. If you wish to start growing flowers for sale, your only way to start with any prospect of success would be to spend at any rate some months where this was practised, and so gain practical experience of the subject.

**HEATING GREENHOUSE (I. P., Grimsby).**—It is quite practicable to heat your greenhouse boiler by means of gas, which has the advantage of being very reliable, though, perhaps, rather expensive. Care must be taken that the boiler is quite outside of the house, otherwise an escape of gas fumes might be very injurious. We presume the dotted lines in your sketch are intended to represent hot-water pipes, in which case you will find that a flow and return on one side will not be sufficient. A 3-inch flow and return around three sides of the house terminating in the corner to the right of the door should meet all your requirements.

**ARTIFICIAL MANURE (Caryer).**—One of the best and generally cheapest, as well as being also a fairly quick-acting manure, is fish guano. It contains in good combination all the primary elements of plant food. It is a manure that should be buried into the soil directly it is applied. It may be used at from 8lb. for flowers to 12lb. per rod for vegetables. Of chemical manures a good combination consists of one-half bone-flour (superphosphate), one-fourth sulphate of potash, and one-fourth of sulphate of ammonia, all well crushed and mixed. It is, however, well to know that only the ammonia sulphate is quickly soluble, and, therefore, may be applied to growing crops; and at once hoed in. Nitrate of soda is of the same nature if used instead. The phosphate and potash manures are longer in dissolving, and are best applied to ground a few weeks before cropping. Of the second combination, that may be applied at the rate of from 6lb. to 8lb. per rod.

**SULPHATE OF IRON AS MANURE (C. C.).**—As you complain that the foliage of your plants turns yellow it is evident that the soil in which they are growing is either sour and lacking air, or else lacking iron, which is one of the primary creators of chlorophyll, the green colouring matter in plant leaves. But sulphate of iron used as a manure dressing to add colour and vigour to leafage must be applied in a very sparse way. It is advised by experts to be applied at the rate of about 10wt. per acre; that would mean about 11oz. per rod. The sulphate should be applied as a top-dressing, very finely crushed, and at once stirred into the soil, when plants are making growth freely, as nitrate of soda is, but in a greatly reduced bulk. As an ordinary chemical manure it should be obtainable from any manufacturer. No doubt Warwick of Tonbridge, Kent, would have it. Failing these, try J. Orme and Co., 65, Barbican, London, who specially offers it. You do not say what kind of plants you require to use it for.

**VARIOUS QUESTIONS (J. Taylor).**—When the flower-buds of Carnations are showing, a little artificial manure would certainly be an advantage, and either of those you mention might be used. Be very careful, however, that you do not give them an overdose, otherwise you will probably cause all the buds to fall off. The best way is to dissolve a little in a can full of water and then to water the plants with it, you are less likely to give an overdose this way than by sprinkling it on the soil. You will find directions given with the artificial manures you mention. We do not know what you mean by asking why border Carnations are not considered to be as good as others, some of the most beautiful Carnations are to be found among the border varieties. You are probably thinking of Malmesdon Carnations, which have much larger flowers, but cannot be grown out of doors. Good shrubs for planting at the windy corner are the Spanish Broom (*Spartium junceum*) or the White Broom (*Ostrya alba*), *Berberis vulgaris*, or the Sweet Briar. Probably the best Rose you could grow on your north wall would be Crimson Rambler. If the shoots got too high for the wall you could easily bend them down. Plant about 10 feet apart.

**NAMES OF PLANTS.—W. J. Wright.**—Vanda Bensoni.—J. T. W.—Bird Cherry (*Prunus Padus*).—K. R.—The Saxifraga is *S. kolenatiensis*.—J. M.—1, *Dendrobium transparens*; 2, *Manandya barclayana*; 3, *Hakeia Soleroli*; 4, *Pelargonium capitatum*; 5, *Begonia Rex*.—R. W. V.—Mountain Ash (*Pyrus aucuparia*).—C. E. R.—*Crataegus arvensis*.—B. Pawl.—*Swainsonia coronillifolia*.—A. Constant Reader.—Leaves of *Viola odorata* (not usually reniform in outline).—M. S. H.—White Beam Tree (*Pyrus Aria*).—H. C. T.—*Rubus deltoideus*.—J. H.—1, *Hemerocallis flava*; 2, *Iris sibirica* var. *orientalis*; 3, *Geranium sanguineum*; 4, *Elymus arenarius*; 5, *Iris foetidissima* variegata (variegated Gladwin); 6, *Saxifraga granulata* f. *pl.* (double Meadow Saxifrage); 7, *Lychnis dioica* f. *pl.*; 8, *Daotylis glomerata* variegata; 9, *Coronilla glauca*.—Thomas Whitelaw.—*Claytonia sibirica*.—Bridget Pengelly.—1, *Nemophila insignis*; 2, *Epimedium rubrum*; 3, *Cerastium Biebersteinii*; 4, variety of White Beam Tree (*Pyrus Aria* var.); 5, Meadow Saxifrage (*S. granulata* f. *pl.*); 6, *Lamium maculatum* aureum. —M. Drage.—1, *Hydrophyllum virginicum*; 2, *Bellis perennis* f. *pl.*; 3, too small for identification. —H. V. Close.—1, *Linum perenne*; 2, *Alyssum saxatile*; 3, *Stachys lanata* (Lamb's Ear); 4, *Armeria maritima* (Sea Pink) *lauchensis*; 5, *Saxifraga hypnoides* (Mossy Saxifrage); 6, *Saxifraga canaliculata*; 7, *Corydalis lutea*; 8, *Saxifraga Andrewii*; 9, *Sedum rupestre*; 10, *Sedum album*; 11, *Veronica Teucrium* var. *dubia*; 12, *Centranthus ruber*. —Cattleya.—Both varieties of Cattleya Mossie. —Miss D.—We believe the variety to be Rose Muriel Grahame, but would rather you send us more perfect flowers later

on; and when doing so attach some foliage, also a piece of the stem. —Robert Richardson.—*Fraxinus Ornus* (the Manna Ash). —Florence Baker.—*Ruscus Hypoglossum*. —Geo. Tweddall.—Probably a species of *Colutea* (cannot name correctly without flowers). —T. B. Durrie.—1, *Coronilla Emerus*; 2, *Rubus spectabilis*; 3, *Lyolium chinense*. —H. Forster.—1, *Gallium cruciata*; 2, *Plantago major*; 3, *Potentilla Anserina*; 4, *Achillea millefolium*; 5, *Conium maculatum*; 6, *Plantago lanceolata*. —R. Diepspecker.—*Gladiolus quartianus*, a widely-spread species distributed over a greater part of Tropical Africa, first introduced into cultivation nearly twenty years ago.

## SOCIETIES.

## ROYAL BOTANICAL AND HORTICULTURAL SOCIETY OF MANCHESTER.

THE annual White week was held in the society's gardens, Old Trafford, under favourable auspices.

Ochids proved the chief feature, many collections containing choice specimens being well arranged.

For the best amateurs' collection, Mr. H. Holbrook, gardener to Elijah Ashworth, Esq., Wilmslow, had an imposing display opposite to the entrance.

Messrs. James Cypher and Sons, Cheltenham, had the best nurserymen's collection of Orchids.

The best collection of *Odontoglossums* shown by amateurs was from Mr. T. Raven, gardener to A. Warburton, Esq.; Mr. H. Holbrook was second.

Groups of plants as usual created much interest. For a group arranged for effect, 150 square feet, amateurs, Mr. J. Smith, gardener to James Brown, Esq., was first; Mr. W. B. Upjohn was second.

For a group covering 100 square feet (amateurs) Mr. H. Mottram, gardener to Mrs. E. E. Lees, was first; second, Mr. W. Jones, gardener to J. E. Williamson, Esq., Stratford; third, T. Shawcross, Esq., Stratford.

For the nurserymen's group occupying 250 feet Messrs. R. P. Ker and Sons, Liverpool, were first with a magnificent bank of hardy greenhouse and stove plants; second, Mr. J. E. Sharp, Almondbury.

For ten stove and greenhouse plants in flower Mr. James Cypher won first prize. For six stove and greenhouse plants in bloom (amateurs) Mr. J. Smith was first. Mr. J. Smith gained the chief award for a collection of *Roses*.

The best collection of thirty different sorts of hardy flowers was shown by Messrs. H. Burch of Holt.

Messrs. Caldwell and Sons exhibited a brilliant display in the class for fifty different sorts of hardy flowers.

## NON-COMPETITIVE EXHIBITS.

Mr. J. Waterer, Bagshot, was awarded a gold medal for a fine display of *Rhododendrons*. Messrs. Clibbens, Altrincham, received a silver-gilt medal for an effective display of *Hydrangeas*, *Roses*, *Carnations*, &c. Messrs. W. Cutbush and Son, Barnet, gained a silver-gilt medal for a choice selection of *Verbenas*, *Carnations*, *Roses*, &c.

Messrs. Charlesworth and Co., Bradford, secured the society's gold medal for a fine group not for competition.

A silver-gilt medal was awarded to Mr. W. Duckworth for a display of Orchids.

## REDHILL &amp; REIGATE GARDENERS' ASSOCIATION.

ABOUT 200 members and friends of the Redhill, Reigate, and District Gardeners' Mutual Improvement Association spent a pleasant and profitable evening recently, when, through the courtesy of Mr. and Mrs. Jeremiah Colman, they were first entertained at Gatton Hall, and subsequently permitted to inspect the conservatories and grounds, their attention being chiefly confined to the splendid collection of Orchids. Mr. Seaman of Margery Hall, Kingswood, proposed a vote of thanks to Mr. and Mrs. Colman. He said that once again they were indebted to Mr. Colman (the president of the association) for the privilege accorded to the members of a pleasant visit to the lovely grounds of Gatton Park.

## SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of this association was held in their hall, St. Andrew Square, Edinburgh, on the evening of the 5th inst. There was a good attendance, presided over by Mr. David W. Thomson, the president. The paper of the evening was by Mr. Cullin M'Lean, Sweetshops, his subject being "Tea Planting in India," where Mr. M'Lean had been engaged for fourteen years in this industry. He gave an interesting account of his experiences, and many details of the cultivation and the preparation of the Tea. He was accorded a hearty vote of thanks. The exhibits at this meeting were both numerous and interesting.

## ROYAL SCOTTISH ARBORICULTURAL ASSOCIATION.

AT a meeting of the council of this association, held in Edinburgh on the 30th ult., it was agreed to send a message of sympathy to the present Lord Mansfield on the death of his brother, the late Lord Mansfield, one of the most valued office-bearers of the association. Thirty-nine new members were admitted, and a considerable number of other gentlemen were nominated for proposal at the next meeting. It was reported that a new branch of the association for Aberdeen, Banff, and Kincardine had been established, and the excursion committee reported the arrangements which had been made for the excursion in Northumberland. The exhibition committee gave a satisfactory report regarding the forestry department in connexion with the Highland and Agricultural Society's show at Peebles in July, and stated that they had arranged for the attendance of a member each day to give a lecture on some subject connected with forestry.

## ROYAL HORTICULTURAL SOCIETY.

## EXHIBITION OF COLONIAL FRUIT.

On the 6th and 7th inst. the Royal Horticultural Society held an exhibition of Colonial fruits in their hall. The most remarkable exhibits were those of Apples from New Zealand, which were exceptionally fine, and a collection of Oranges in many handsome sorts from the Transvaal.

The display made by the New Zealand Government consisted principally of Apples, of which eighty varieties were shown, illustrative of those chiefly produced in the orchards of the colony, but included also bottled and canned fruits of all sorts, jams, sauces, &c. The Apples were particularly fine. A number of very fine photographs of New Zealand scenery were shown on the tables. The colony of New Zealand is eminently adapted for the production of all fruits belonging to the temperate zone. From Auckland in the north, to Otago in the south, fine crops of Apples, Pears, Peaches, Plums, &c., can be grown. As yet, however, fruit growing on commercial lines is in its infancy. Gold medal.

The Agent-General for New South Wales exhibited an interesting collection of dried and preserved fruits. Pears, Apricots, and Peaches were among the dried fruits, and those preserved in bottles comprised Japanese Plums, Passion fruit, Pears, Peaches, Plums, and Apricots. Sample bottles of New South Wales wine, and splendid photographs of the colony were also on view. Silver-gilt Knightian medal.

The West Indian Produce Association exhibited Jamaica cigars, cigarettes, pure Cane Sugar, Lime Marmalade, and other West Indian produce and fruits. Silver Banksian medal.

The Victoria (Australia) Department of Agriculture displayed a splendid lot of Apples and Pears in numerous varieties, most of them wrapped in tissue paper and packed in sawdust in strong boxes as shipped. *Eriopis Splitzenberg*, *Oleopatra* (a clear pale yellow Apple), Newtown Pippin, Rymer and Sturmer Pippin were some of the favourite Apples. In addition, there were samples of bottled Gooseberries, Cherries, Plums, &c. There were on view some especially fine fruits of Harrington, Josephine, and Winter Nela Pears. Gold medal.

An attractive exhibit was arranged by the West Australian Government. It comprised specimens of West Australian produce, such as timber, cotton, Barley, Hope, Wheat, Apples, &c. This exhibit was in the form of a high wall, the face being attractively fitted up with various products. Silver Banksian medal.

South Australian fruit in variety was shown by the Agent-General for South Australia. There were Quinces, Pomegranates, Grapes, and dried fruits, in addition to a very fine lot of Apples and Pears. *Cornish Aromatic*, *Reinette du Canada*, Wellington, Raspberry Pippin, *Cleopatra*, and others were very beautifully coloured. Gold medal.

A collection of Oranges from the Transvaal, comprising many handsome and most richly coloured varieties, was shown by several exhibitors from that colony. They were shown in various sizes and in many shades of colour, from yellow to deep orange-red, while they varied in shape considerably also. An award of merit was given to a large and handsome Orange with clear yellow skin and juicy flesh and practically no pipe. This was called *Transvaal Seedling*, and was shown by Mr. McCord, Waterberg, Transvaal. This exhibit, which was sent under the auspices of the Transvaal Government, contained, in addition, some huge Citrons. Gold medal.

Lady Flounden, Aston Rowant, showed a very attractive exhibit of fruit, e.g., Melons, Nectarines, Strawberries, and Potatoes. Silver Knightian medal.

A silver Knightian medal was awarded to the Natal Government for a collection of Oranges and Pineapples; the latter, however, were small and only half ripe. Included was a dish of dark red egg-shaped fruits called *Amatungula* (*Carissa grandiflora*).

Messrs. Dobbie and Co., Rothesay, exhibited a delightful lot of Panais, V. I. As, and Aquileias.

Mr. A. P. Hamman, Worcester, Cape Colony, exhibited Raisins and Currants.

An exhibit of West Indian produce was made by the Royal Mail Steam Packet Company. Large bunches of Bananas, Yams, Sweet Potatoes, Mammee Apples, preserved Guavas, Guava Jelly, and other interesting things were on view. Silver Knightian medal.

The British West Indian Fruit Company, 15, St. Helen's Place, E.C., exhibited Bananas in several varieties, Limes, and preserved fruits, all West Indian produce. Silver Banksian medal.

Messrs. Hans Irvine and Co., Dowgate Hill, E.C., exhibited sample bottles of Australian wines of various sorts.

Dr. Benjafield, Hobart, Tasmania, exhibited a number of dishes of Apples and Pears from standard trees grown in his private open orchard and without irrigation. The Pears were good, especially such as *Crasane*, *Bourré Boe*, and *Bourré d'Anjou*. Silver Knightian medal.

Specimens of West Indian Tobacco as issued to the Navy were shown by Victor Chalmers, Esq. Silver Knightian medal.

Specimens of Ramie Fibre were shown by the Ramie Mills, Staines.

Messrs. John Pead and Son, West Norwood, showed tuberoses *Begonias* and *Streptocarpus*, and these, together with the zonal *Pelargoniums* and other flowering plants from Mr. H. B. May, made a bright splash of colour in the hall.

Mr. George H. Sage, 71, Minor Road, Richmond, showed Bruce's Flower Displays, Raffi Tape, and other sundries. Val's Beetles were also shown by the proprietors.

## ROYAL HORTICULTURAL SOCIETY.

THERE was a very pretty show in the Hall at Vincent Square on Tuesday last.

## ORCHID COMMITTEE.

A small group of exceedingly interesting and choice Orchids was shown by Sir Trevor Lawrence, Bart., Burford, Dorset. *Thunia Marshalli*, white, with orange lip; *T. Benconie* superba, purplish crimson; *T. veltchiana* Burford variety, white, with purple veined lip; and *T. veltchiana* superba, with delicate crimson-tinted flowers, formed a beautiful background to the collection. Handsome forms of *Odontoglossum crispum*, several fine *Madevalliæ*, and some small *Epidendrums* and *Polystachyas* were in front. *Dendrobium jerdonianum*, with numerous bright orange flowers; *Lælio-Cattleya Sunrise*, pale yellow; and *Epidendrum paniculatum*, with small mauve flowers, were remarkable. Silver Flora medal.

H. S. Goodson, Esq., 85, West Hill, Putney (gardener, Mr. George E. Day), sent a large group of well-grown *Cattleyas*, *Miltonias*, *Cymbidiums*, *Odontoglossums*, *Oncidiums*, *Dendrobiums*, and *Cypripediums*, forming a varied and effective display. Silver-gilt Flora medal.

F. M. Ogilvie, Esq., The Shrubbery, Oxford, exhibited ten vigorous plants of *Cypripedium calceolus* Sanders, with its large, greenish flowers in perfect condition. On each side of these were groups of the white *Cypripedium niveum* and *bellatulum album* similarly noteworthy. Silver-gilt Banksian medal.

From Messrs. Sander and Sons, St. Albans, a group of choice Orchids formed an interesting feature, the plants being well arranged with *Ferns* and *Palms*. *Cattleyas*, *Odontoglossums*, *Aerides*, *Phalæns*, and *Cypripediums* were admirably represented by finely-flowered specimens. *Phalæns Cooksoniæ* was shown in excellent condition; the handsome hybrid *Lælio-Cattleya Aphrodite* was conspicuous, also *Lælio-Cattleya Martineæ* and *Lælio-Cattleya Lady Wigan* with delicately bell-shaped flowers. Silver Flora medal.

Messrs. Charlesworth and Co., Bradford, contributed an extensive group of superbly-flowered specimens. *Lælio-Cattleyas* predominated, and furnished many rich shades, a beautiful contrast with the darker form being afforded by *L.-C. canhamiana* alba, the sepals and petals pure white, and the lip crimson. *Phalænsopsis* and *Odontoglossums* were also notable in the collection, while a distinct colour, bright orange, was supplied by *Lælio-Cattleya G. S. Ball*, a hybrid from *Lælia cinnabarina* and *Cattleya Schröderi*. Silver-gilt Flora medal.

*Cattleyas* were well shown by Messrs. Hugh Low and Co., Enfield, the group comprising many handsome forms of *C. Mendellii*, *C. gaskelliana*, and others, besides *Lælio-Cattleyas* and *Lælia purpurata* in grand condition. *Oncidium macranthum*, *O. leucocentrum*, and *Odontoglossum hastilabium* were also interesting. Silver Flora medal.

Sir F. Wigan, Bart., Clare Lawn, East Sheen (gardener, Mr. W. H. Young), contributed a collection of valuable and interesting Orchids, including *Odontoglossums*, *Cattleyas*, *Lælias*, *Cypripediums*, and *Madevalliæ*. The white *Cattleya Mossii* Wagneri with eight flowers was a fine central specimen. *Lælia tenebrosa*, *Cypripediums*, *Cymatodes*, with four large flowers, and *C. gowerianum* magnificent, with one dark crimson bloom, were conspicuous, in addition to those for which awards of merit were granted. Silver-gilt Flora medal.

In the *Lælio-Cattleya* class the first diploma was granted to J. Colman, Esq., Ganton Park Gardens (gardener, Mr. Bound), for *Lælio-Cattleya Phœbe*, very handsome with bright orange sepals and petals and a deep magenta lip. The second diploma was also secured by the same exhibitor for *Lælio-Cattleya canhamiana* alba with three superb flowers, the petals and sepals pure white, the lip crimson margined with white.

Baron Schröder, The Dell, Egham, exhibited a plant of *Cypripedium superbum* Curtal bearing four large flowers, the dorsal sepal large, green, veined in white, the lip dark, and the petals dotted with maroon. *Cymbidium Sandersi*, with bluish sepals and petals, and the lip dotted with crimson, was very distinct.

H. Little, Esq., The Barons, Twickenham, had a plant of *Cypripedium javanicum* superbum, with dotted petals and a green-veined dorsal sepal.

F. Wellesley, Esq., Westfield, Woking (gardener, Mr. Hopkins), was awarded the first diploma for *Cypripedium lawrenceanum* hackbridgei, the dorsal sepal very broad and rounded, heavily veined with dark crimson.

F. M. Ogilvie, Esq., also had the second diploma for *Cypripedium lawrenceanum* var. *Marjorie*, the flower large, the dorsal sepal broad, veined with green, and the petals and lip greenish yellow.

## FRUIT AND VEGETABLE COMMITTEE.

Few exhibits were brought before this committee. Mr. Mortimer of Farnham showed two new Cucumbers, which were admired. Several Melons were also shown, and Messrs. Paul and Son, Chesshurst, sent fruiting branches of an early Cherry, Frühste de Mark.

## FLORAL COMMITTEE.

Hardy plants were in great abundance at this meeting, and in the best possible variety.

From Maidstone Messrs. Banyard brought a rich display of *Rhododendrons* and garden *Roses*, amplifying these with masses of *Gallardia*, *Poppies*, and a rich and varied display of *Pyrethrums*, *Peonies*, *Irises*, *Heucheras*, and other showy flowers. A very fine Poppy, *Queen Alexandra*, of deep salmon tone, was especially good and much admired. *Lilium monadelphum*, in its rich yellow tone, was extremely good and effective.

Messrs. William Catbush and Sons, Highgate, contributed a very charming lot of *Verbenas*. *Snowflake*, *King of Scarieta*, *Princess of Wales* (purple), and the pink *Miss Willmott* being very noticeable and good.

Messrs. B. R. Cant and Sons, Colchester, had very charming masses of the climbing *Roses* *Dorothy Perkins*, *Lady Gay*, *Philadelphia Rambler*, and others. A large variety of single and other *Roses*, as *Mrs. O. G. Orpen*, pink Climbing *Damask*, with *Rose sinica* were noticeable.

Mr. E. C. Nottcutt, Woodbridge, had bright masses of *Pyrethrums*, *Irises*, *Poppies*, *Lychnis*, and the like, and from Messrs. J. Teed and Sons, West Norwood, came a large variety of alpine in pans, together with *Malmesdon Carnations*.

Messrs. R. Smith and Co., Worcester, had a showy group of *Peonies*, *Poppies*, and *Irises*. *Pæony albiflora* major was very striking, and *Æthionema grandiflora* a pretty mass of pink blossoms.

Single and double *Pyrethrums* from Messrs. R. H. Bath, Floral Farms, Wisbech, made a very charming display, and in their great variety were much admired. *Princess Mary* (single white) and *Nancy* (buff yellow) were very good.

*Columbines* and zonal *Pelargoniums* were a feature from Messrs. Bakers, Wolverhampton, and we know of no more delightful hardy flowers than these for cutting or for the garden. The great variety and their elegant forms render them most popular.

Messrs. Wallace and Co., Colchester, had a most interesting group of hardy flowers, in which *Pyrethrums*, *Heucheras*, *Lilies*, *Irises*, and *Poppies* were conspicuous items. *Irish Haynet*, of the *onocycloids* group, was very noticeable. *Sparaxis Fire King* and *Lilium rubellum* were very beautiful.

Messrs. Veltch and Sons, Limited, Chelsea, had a display of new plants as *Primula cookburniana*, *P. Veltchii*, from plants lifted from the open, *Meconopsis integrifolia*, &c. *Primula pulverulenta* is a most striking plant.

Mr. W. James, West Dean Park, Chichester, showed a fine plant of *Malmesdon Carnation* in a tub.

A most extensive assortment of cut trees and shrubs came from the gardens of Lord Aldenham, Elstree (gardener, Mr. E. Beckett). It is not possible to enumerate the great variety of things here displayed, which we regard as among the most representative and comprehensive we have seen.

Messrs. Hugh Low and Co., Enfield, contributed a nice group of cut *Carnations*, chiefly of the American tree section, together with large examples of the *Malmesdon* class.

Hardy flowers were freely shown by Messrs. Barr and Sons, Covent Garden, in masses, *Lupins*, *Poppies*, and *Irises* being conspicuous.

The *Ixoras* from Mr. H. B. May, Edmonton, were quite a feature, many fine groups of the best-known kinds being staged. We noted *Fraseri*, *Williamsi*, *Pilgrimi*, and others.

Mr. Anthony Waterer, Knap Hill, Woking, contributed fine trusses of *Rhododendrons* in variety.

Messrs. Veltch and Sons, Limited, Chelsea, had *Lobelia tenax*, very fine, with hybrid *Gerberas* and *Kalanchoë flammea*, the latter very fine, also the beautiful orange-coloured *Primula cookburniana*, &c.

The single and double *Pyrethrums* from Messrs. Kelway and Sons made a fine display, and with *Peonies* and *Larkspurs* provided quite a feast of the earlier hardy summer flowers. *Pyrethrums Pericles*, *Virgo*, and *Solfaterre* were all charming in yellow shades.

*Sureptocarpus* were largely shown by Messrs. J. Lising and Sons, Forest Hill, together with many interesting alpine in pans and the like.

The Guildford Hardy Plant Nursery had a choice lot of hardy flowers, in which *Onosma taurica*, *Aster alpinus* albus, and others were noted. *Irises* were very good.

Stove decorative plants formed a small group from Messrs. William Bull and Son, Chelsea.

Mr. Maurice Priohard, Christchurch, Hants, showed *Poppies*, *Pyrethrums*, and *Irises* in great variety, each group finely presented and well represented. Really a rich display of the earlier summer flowers.

Mr. E. L. Bishoffshelm, Warren House, Stanmore (gardener, Mr. C. J. Ellis), staged a fine lot of *Malmesdon*. *Princess of Wales*, *Duchess of Westminster*, and *Lord Welby* being among the kinds shown. The plants were finely grown and well flowered.

The specimen plants of herbaceous *Calceolarias* from Lady Northcliffe, Sutton Place, Guildford (gardener, Mr. J. Gosley), were particularly fine, and in many shades of colour from yellow to bronze and carmine, with many finely spotted varieties. Each plant was a specimen of its kind, and the group was greatly admired.

Hobbies, Limited, Dereham, contributed a fine display of the rambler *Roses*, the single carmine-flowered *Hiawatha* being in fine condition. We were informed that this identical plant was on view at the Temple Show a fortnight ago.

Stove and greenhouse plants were very good from Mr. L. E. Russell, Richmond, who had a rich display of *Irises* and *Pyrethrums*.

Mr. W. J. Godfrey, Exmouth, showed his fine strain of *Poppies*, with regal and decorative *Pelargoniums* in variety. We also noted *Solanum wendlandianum* in well-flowered examples.

Messrs. Gilbert and Son, Bourne, showed *Columbines* and *Anemones* in a very artistic manner and in pleasing variety.

*Malmesdon* and other *Carnations* in Bamboo stands were admirably shown by Sir S. Scott, Westbury Manor, Brackley (gardener, Mr. F. Tappin).

Excellent *Calceolarias* in pots came from J. P. Young, Esq., West Hill, Putney (gardener, Mr. S. H. Street), the plants finely grown and well flowered.

The *Carnations* from Mr. H. Burnett, Guernsey, were particularly fine, and the group well displayed. *Glacier*, a fine white, so often confused with *Mrs. S. J. Brooks*, was seen in excellent form, and with *Eucharis*, *Aurora*, and *Mrs. H. Burnett* (pink), a rich display was made.

An exhibit of alpine herbaceous cut shrubs and *Roses* from Messrs. Paul and Son, Old Nurseries, Chesshurst, was of more than ordinary interest. *Essex Scarlet Rhododendron* was a very fine.

Mr. G. Reuthe, Keston, Kent, showed hardy flowers very finely, *Irises*, *Pyrethrums*, and *Bremuri* being noted. Some pretty alpine were also seen in this group with interesting rock and other shrubs. *Campanula Allioni* was exceptionally good and well flowered.

The group of hardy plants from Mr. Amos Perry, Winchmore Hill, contained many fine things. *Poppies* were especially fine, also *Pyrethrums*, *Irises*, *Heucheras*, &c. The *Poppies*, indeed, were quite a feature of the group, and some very charming things were shown. *Irisolirion tataricum* is a very fine blue. *Phlox canadensis Laphami* was in the finest condition, and many excellent *Water Lilies* were shown in good variety.

Messrs. Carter and Co., Holborn, brought many fine plants of *Lobelia Holborn Blue*, a fine double-flowered variety. *Gloxinias* were very good.

Messrs. Chas and Sons, Crawley, exhibited a great variety of cut shrubs and the like. *Flag Irises* were freely shown by Mr. J. Douglas, Bookham, Surrey; and Mr. Mortimer had a display of *Carnations*.

A table filled with the most exquisite *Columbines* came from Messrs. Dobbie and Co., Rothesay, and in their infinite variety gave one much pleasure.

## AWARDS.

*Rhododendron Vincent Powercourt*.—Fine trusses of red-carmine, with dark spots. Award of merit.

*R. Gomer Waterer*.—An immense truss of the palest lilac blossoms, and certainly one of the finest hardy *Rhododendrons* we have yet seen. The plant is quite hidden by the huge trusses of flowers. Award of merit. These two came from Messrs. J. Waterer and Sons, Bagshot.

*Gloriosa rothschildiana var. Citrina*.—A most interesting form, in which the chief distinction is the red mid-rib, which extends in a broad blade-like outline to the tip of the segments. From the Hon. Walter Rothschild, M.P., Tring Park (gardener, Mr. A. Dye). Award of merit.

*Verbena Snowflake*.—This is a fine and compact truss of a very good white-flowered form, the plant being most freely flowered. From Messrs. William Catbush and Sons, Highgate. Award of merit.

*Papaver orientale Mrs. Perry*.—A flower of the largest size, of salmon colour, with dark-coloured blotches at the base. A very showy and attractive variety. Award of merit.

*Papaver orientale Queen Alexandra*.—This is of decidedly cupped form, the longitudinal dark blotches more emphasised, and creating quite a new feature in these plants. The colour is of the deepest salmon, with a scarlet blend. Award of merit. These were shown by Mr. Amos Perry, Winchmore Hill.

The descriptions of the new Orchids are held over. The list of medals was received too late for publication.

**Messrs. John Waterer's Rhododendron show.**—This annual exhibition of *Rhododendrons* was opened on Monday last in the Botanic Gardens, Regent's Park, N.W. It is an exhibition worth visiting, and will remain open during the present month. We shall refer to it more fully next week.

**Messrs. Sutton and Sons of Reading** announce that on May 1 last Mr. E. Phillips Foquet Sutton, youngest son of their senior partner, joined the firm, which now consists of Mr. Martin J. Sutton, Mr. Arthur W. Sutton, Mr. Leonard G. Sutton, Mr. M. H. Foquet Sutton, and Mr. E. Phillips Foquet Sutton.

## TRADE NOTE.

## THE LITTLE GRIPPER.

WE have seen and tested a new tool which should especially appeal to all who love their gardens. It combines a number of useful purposes—weeding without stooping, picking and holding flowers or fruit growing out of reach, and light pruning without the need of gloves. It can also be used as a walking-stick and to pick up stray trifles, and will thus be seen to be a combination tool of no small pretensions. A tool strong enough for such work, yet weighing no more than an umbrella, will, we fancy, become indispensable to many gardeners. We recommend our readers to ask to see it at their ironmongers or florists, or to send a post-card to the inventor and maker, A. C. Harris, 42, Howard Road, Leicester, who will post a sample on approval. The price is 5s. ordinary finish, or with plated handle and special cane 7s. 6d.

**ORCHIDS AT THE TEMPLE SHOW.**—With reference to your report of the Orchid exhibits at the recent Temple Show, we would like to point out that the two finest varieties of *Cattleya Mendellii* exhibited by us had names, viz., *Mercury* and *Fame*, and were much admired. The former of these received from the committee an award of merit, which is duly noted in your official list. *Odontoglossum crispum* Fearley Sander, possibly the most attractive object in the Orchid tent, was included in our group.—HUGH LOW AND CO.

**ERRATUM.**—From The Gardens, Lofthouse, Torquay, the fourth prizewinner in our April competition, Mr. S. T. Githam, writes to say that in the former announcement his name was wrongly spelt as Gilham.

\* \* The Yearly Subscription to THE GARDEN is: Ireland, 6s. 6d.; Foreign, 8s. 6d.

**SITUATION VACANT.**

CAN any Gentleman recommend a trustworthy, energetic, single-handed GARDENER for semi-wild garden, herbaceous and bulbs, kitchen garden? No glass. In Surrey. Wages 18/- and lodge of three bedrooms.—Letters to "J." 23, Pall Mall, S.W.

**SITUATIONS WANTED.**

RICHARD SMITH & CO. beg to announce that they are constantly receiving applications from gardeners seeking situations, and they will be happy to supply any lady or gentleman with particulars, etc.—St. John's Nurseries, Worcester.

**THE BRITISH GARDENERS' ASSOCIATION** can recommend as Landscape Gardeners, Head Gardeners, Foremen, Journeymen, etc., thoroughly capable men. Ladies or gentlemen requiring such should apply to the SECRETARY, British Gardeners' Association, Talbot Villa, Isleworth, W.

**MISS PECKOVER** (Sibaldsholme, Wisbech) recommends Gardener, single-handed, or where help is given; eleven years' reference; inside and out; married; age 34.—Address H. LAMBERT, 40, North Brink, Wisbech.

**GARDENER** (Head Working); married; age 36; thoroughly experienced inside and out; well recommended by late employer, excellent previous testimonials.—GARDENER, 22, Obelisk Street, Camberley, Surrey.

**GARDENER** (Head Working) requires situation; life experience in all branches; good references from first-class places.—GARDENER, 13, Lingfield Terrace, Bush Hill Park, Enfield.

**M. R. WARNER**, Gardener to Viscount Middleton, wishes to highly recommend his Foreman, F. Street, as Head Gardener, where help is given; age 28; married when suited.—F. STREET, Peper Harow Park, Godalming, Surrey.

**GARDENER** (Single-handed or Second), inside and out; age 24; single; eight years' experience; four years nine months last situation; good references.—"C. B." 1, Larch Cottages, near Asot, Berks.

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**EDITORIAL NOTICES.**

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the EDITOR OF THE GARDEN, accompanied by name and address of the sender.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

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**LEGAL POINTS.**

**UNDER GARDENER NOTICE (Reader).**—A week's notice is sufficient. In any case your master could apply for damages against you. We do not understand your master's contention as to a fortnight's notice. The notice should be a week or a month.

**INJURY TO WORKMAN (J. M.).**—You are liable to pay compensation to the injured workman, although he was only a day labourer. He was engaged in agriculture or forestry, and was entitled to the benefit of the Act of 1900. You will have to pay him not more than 50 per cent. of his average weekly earnings, not to exceed £1 per week. But no compensation will be payable unless (1) he is disabled for at least two weeks from earning his full wages, and (2) he makes his claim within the time specified by the Act.

**HEAD GARDENER, NOTICE TO (J. T., Gloucester).** There is a well-known rule that domestic servants, such as cooks, housemaids, parlourmaids, laundry maids, dairymaids, nurses, butlers, valets, housekeepers, footmen, pages, coachmen, head gardeners, &c., are entitled to one month's notice or to one month's wages in lieu of notice. They must give the same notice to their employers. The reason of this rule is said to be that masters are brought into such close proximity with their domestic servants that it would be incompatible with the comfort of both parties if, in case of difference, the contract could not be determined until the expiration of the year of service. The notice may be given at any time, and will take effect at the expiration of a calendar month from the date when it is given. The notice need not expire at the end of the second or some other month of the term of employment. A discharged servant is entitled to nothing for board wages, or maintenance during the month, should the master decide to pay wages in lieu of notice. Where a domestic servant is engaged for a month, the better opinion seems to be that he is entitled to leave or may be dismissed at the end of the month, provided he gives or receives a fortnight's notice. It is, however, wise to make an express agreement upon this point when the servant is engaged, and the best plan seems to be to arrange that the first month shall be considered a trial month, and that if either party is dissatisfied, notice is to be given at the end of the first fortnight that the engagement is to terminate at the conclusion of the first month. Some doubt exists as to the notice necessary to terminate the engagement of grooms and stablemen who are paid by the week. If they are engaged by the week and paid by the week it is quite clear that they are only entitled to a week's notice. If, however, nothing is said on the subject of the term of the engagement, the question is whether they are entitled, as domestic or menial servants, to a month's notice, or whether they are to be considered as weekly servants who are only entitled to a week's notice. The better opinion seems to be that they are entitled to a week's notice, but it is always desirable to make an express arrangement upon the subject.

**OBITUARY.****SIR CHARLES TENNANT.**

THE death of Sir Charles Tennant, Bart., of The Glen, Innerleithen, Peebles, removes one of the best supporters of horticulture in Scotland, and his own taste has left its mark in the improvements he effected on his estate of The Glen. Apart from its merits from the point of view of landscape gardening, The Glen has long been one of the leading Scottish gardens, and Sir Charles, unlike many in a similar position, not only allowed his gardener to exhibit at the leading shows of the Royal Caledonian Society, but took pleasure in the many successes of his gardener, Mr. M. M'Intyre. All classes of plants and other things were well grown at The Glen. He took much interest in forestry also, and his successes in this direction were a source of much pleasure to the venerable baronet, who was upwards of eighty-two years of age.

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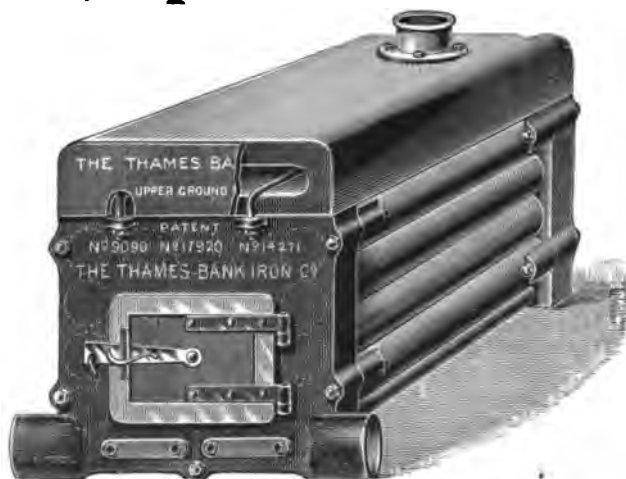
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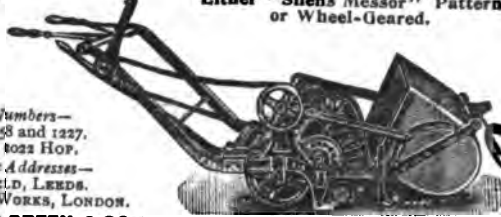


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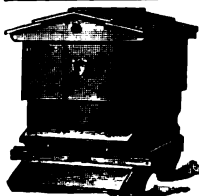
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# THE GARDEN.

No. 1805.—VOL. LXIX.

JUNE 23, 1906.

## "BLANKET" WEED IN PONDS.

**I** SUPPOSE that most of us who grow *Nymphæas* and other choice things in our ponds and tanks have made the acquaintance of that slimy, stringy, green weed, known to some by the expressive name of "Blanket" weed, which is such a nuisance and grows so rapidly in warm weather, especially in shallow exposed water. Hitherto I have spent many precious hours of each summer, perspiring and anathematising, pulling the horrid stuff out of my small tanks by the yard, and occasionally breaking off and tearing away portions of pet *Nymphæas* and other cherished aquatics entangled in the squashy mass. But now, thank goodness, all that is changed, for coming across a most interesting article (I believe in *Country Life*) describing the elimination of this pest from large reservoirs in America by the use of copper sulphate (blue vitriol), I resolved to try the system on a small (*very* small) scale in my Lily tanks here, and am thankful to say the experiment, so far, has been a decided success.

The process is so simple that a few brief sentences will suffice to describe it. Calculate as nearly as possible the contents in cubic feet of the pond or tank, multiply this by  $\frac{6}{5}$  to give the number of gallons of water, allow one-fiftieth of a grain of copper sulphate to each gallon; weigh out and dissolve the stuff in any convenient vessel, in sufficient water thoroughly to sprinkle the surface of the pond through the rose of an ordinary watering-pot, or, if the surface is too extensive or inaccessible through a garden syringe, being careful to distribute the solution as evenly as possible over the whole surface. Of course, in larger ponds or lakes a boat must be used, and the sulphate can, if more convenient, be finely powdered and sprinkled over the water.

I am, unfortunately, not absolutely sure as to the proper proportion of the sulphate, as I have mislaid my notes and calculations, but I do not think there is anything wrong, and certainly my own experiments and those of my friends to whom I have recommended the process have been sufficiently successful to confirm the correctness of my memory. The "Blanket" weed soon disappears, no harm being done to the goldfish or to the *Nymphæas*, &c., though the water certainly looks of a darker colour (while still clear) for some time afterwards. I operated on one small shallow pond fully a year ago—a nasty gruesome mass of clinging slime it was—and it has

been free from its unwelcome burden ever since.

Some of my gardening friends and neighbours have now tried this plan, with signal success, but I am asked by one who has a large pond (full of the weed), which is used for supplying water to his whole garden, glass houses, and all, what will be the effect of using the poisoned water on delicate plants in the greenhouses and flower garden.

My own idea is, judging from the result of using it upon my own plants near my Lily tank, that no ordinary outdoor vegetation takes the least harm from the infinitesimal amount of copper sulphate in the water, but I have never tried it on hothouse plants. Experiments in the American reservoirs indicate that though the copper is actually absorbed by the weed during destruction, it may be precipitated in an insoluble form at the bottom of the water. But I hesitate to recommend my friend to adopt the "Blanket" cure in this case without an expert opinion to back me up, so I shall be infinitely obliged to any reader of *THE GARDEN* who may have experimented with this substance in the manner alluded to above, and who will be kind enough to give me any details of results, either satisfactory or otherwise.

Last year, when on a visit to my friend Mr. R. W. Wallace's garden at Colchester, I recommended him this copper sulphate cure for his newly-made Water Lily ponds, where he was much bothered with the "Blanket" weed. He used one-fiftieth of a grain to each calculated gallon of water, and I believe the weed was successfully eliminated, but I also believe that one of his water plants (not a *Nymphæa*) was slightly eliminated, or that it, at any rate, suffered somewhat during the process. I have not time to write to him for particulars, as I want to get an answer for my friend here, about watering his greenhouse plants, as soon as possible. Perhaps he will see this note and kindly let us know, as it is important to hear the evidence on both sides in such a revolutionary scheme, and I myself do not wish to be held answerable for even suggesting the indiscriminate slaughter of innocent aquatics.

Yalding.

S. G. R.

## MILDEW ON ROSES.

THERE is one aspect of the question on which both the horticultural Press, and all works devoted to the Rose to which I have access, maintain a singular reticence. I refer to

THE EFFECTS OF DIFFERENT STOCKS ON MILDEW.—It will be remembered that a year or two ago I discussed in *THE GARDEN* the question as to why Rose Fortune's Yellow was so apt to drop its leaves just about flowering time. A great deal of correspondence reached me in reference to this subject, and after some enquiry I was able to ascertain the fact that the stock, as well as

the treatment afforded, had much to do with this troublesome predisposition. Now I have an idea (it is only an idea at present) that it might be found possible to work mildew out of the blood of a Rose by means of an anti-mildew stock. It is well known that we have many species of Roses which are quite mildew proof, and we have also many beautiful varieties which are practically useless because of their predilection for mildew. As an illustration of this I need only instance the Hybrid Tea Killarney, which, unless my experience be particularly unfortunate, seems to be more afflicted with this disease each year. Surely it would be worth while making some experiments to ascertain whether the idea is a practical one or not. At any rate, it seems to me that a stock which is more or less free from the ravages of mildew would be far more suitable than some of the stocks now used. Take, for instance, the case of de la Grifferaie, which is a favourite stock in the trade for climbing Roses, notably Dijon Teas. Now this stock is particularly subject to mildew, but we find that it is being used almost without exception to work varieties, some of which are themselves prone to mildew. One of the loveliest of all the Dijon Teas, i.e., Mme. Moreau, is generally worked upon this de la Grifferaie stock, which probably encourages its inherent tendency to mildew. For my own part I cannot help feeling some doubt as to the wisdom of this policy, but I suppose it will remain unquestioned until both the trade and the general public show a little more interest in the immensely important subject of Rose stocks. By the way, it is curious that the Manetti is mildew proof, and yet that Roses budded on it are the first to be attacked.

SOME CAUSES OF MILDEW.—I have frequently heard the idea expressed that our present-day Roses are far more subject to the ravages of mildew than were the older varieties. Never was there a greater mistake. If we look through a Rose catalogue of twenty-five years ago it does not take long to discover that rosarians in those days possessed quite as many varieties addicted to mildew—possibly more—than are contained in our gardens to-day. That old one-time favourite Hybrid Perpetual Géant des Batailles was very subject to it, and there were numberless others which were especially liable to attack, some of which are, of course, still in cultivation. Prince Camille de Rohan, Pierre Notting, Mme. Lacharme, Duchesse de Vallombrosa, John Hopper, Cheshunt Hybrid, Eugénie Verdier (syn. Marie Finger), Violette Bowyer, Fisher Holmes, and Général Jacqueminot are some of those whose names are familiar among a host of others long since forgotten, all of which are known at the present time to be quite as prone to mildew as any of our modern Hybrid Teas. My experience with these latter is that they certainly do not acquire mildew as readily as do the Hybrid Perpetuals, and this is where I must beg leave to differ from my friend Mr. Molyneux, when he groups them together and remarks that "Ninety per cent. of all Hybrid Teas and Hybrid Perpetuals are liable to mildew." The assertion may be mathematically correct, but the worst offenders are certainly the Hybrid Perpetuals.

Kidderminster

ARTHUR R. GOODWIN.

(To be continued.)

## COLOURED PLATE.

PLATE 1301.

### AMERICAN CARNATIONS.

**C**ONSIDERING their value as cut flowers, it is not surprising that the American varieties have become so popular, but some of the old school still repudiate them. The first we had were certainly lacking in quality, and it was not until the introduction of Mrs. Thomas W. Lawson that they found favour. Even with this many thought its value had been over-estimated, yet to-day it is one of the most popular we have, and is extensively grown for market. It has given several sports, the white variety represented in the plate being one of the best. It is very free and has thick fleshy stems, which take up water well, and consequently the flowers last a long time. I recently saw a fine pink sport, which should be valuable if it will prove constant. Nelson Fisher, the cerise variety, is much of the same habit, with flowers of a deeper shade of colour than Mrs. Lawson. It has received an award of merit from the Royal Horticultural Society, and also from the Royal Botanic Society, distinctions which it well deserves.

Enchantress, the pale flesh pink variety, is perhaps the most popular of all; it certainly sells best in market, and I think it is quite safe to say that growers have found it most profitable; this has also given a sport. American growers have also secured the same sport, but at present we have not a sufficient stock to put on the market. Taking other American sorts, Fiancée has not come quite up to the standard of excellence that was claimed for it, yet I have seen it very good. The fault is that the calyx bursts, and the flowers are often of poor shape, the colour also varies, but at its best it is a very pleasing shade of pink. In scarlets, it is difficult to say which is the best. Cardinal is a favourite with most growers. Flamingo is good, but a little inclined to burst its calyx. Adonis, one of the first good scarlets, is still largely grown, and Christmas Eve is a very free flowering variety, but not quite so bright in colour. I have been inclined to give Harlowarden first place as a deep crimson, but The President, as shown recently by Mr. H. Burnett of Guernsey, appears even better.

Among whites Lady Bountiful has taken the lead for some time, but I find it is not of such good substance as some of the others. In all shades of colour we seem likely to get too many varieties, and the most useful work the new Carnation society can do is to take careful notes of the various sorts with a view to proving which are the most free as well as the best in regard to substance. Taking the

CULTURE of the American varieties, they are of vigorous growth, and not difficult to propagate, but they must be potted on as they require it. It is only when given more root room than has been usual with English varieties that they prove satisfactory. Another point is that they should be stopped early, for if allowed to run up they do not branch out so well later. With the Americans the planting-out system is practised, and when taken under glass for the winter they are planted on benches or stages, where they get plenty of root room. I find some of our

English growers are following the same practice successfully. It is of little use to attempt the culture of Carnations for winter flowering unless they can have proper attention from start to finish, and for winter flowering they must have all the light and air possible, with just sufficient artificial heat to keep them going. I find that more Carnations are ruined through giving too much heat than from any other cause, except, it may be, from failing to keep them free from insect pests, yet with ordinary care there is no class of plants which may be flowered better during the winter and prove more valuable than the American Carnations.

A. HEMSLEY.

[Flowers of the beautiful varieties illustrated were kindly sent to us by Messrs. Cutbush and Son, The Nurseries, Highgate, where Carnations of all classes are grown with great skill. The displays of Carnations made by this firm at the Temple and other shows are memorable for the great variety of sorts exhibited and their admirable cultivation.—ED.]

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

June 26.—Royal Horticultural Society's Exhibition and Meeting.

June 27.—Richmond (Surrey), Chippenham, Colchester, Farnham, Farningham, Reading, and Southampton Flower Shows.

June 28.—Isle of Wight, Canterbury, Norwich, and Walton-on-Thames Rose Shows.

June 30.—Windsor and Eton Rose Show.

**Clashing of show dates.**—It is unfortunate that two such important fixtures as the annual exhibitions of the Sweet Pea Society and National Rose Society should occur on the same day, Thursday, July 5. We hope that in future this clashing of dates will be avoided if it is possible.

**The Isle of Wight Rose Show.**—This important southern show will take place on June 28, not June 26, at Ryde House, Ryde. That day is to be kept as Coronation Day in the Island.

**Dropmore, Maidenhead, in early summer.**—These gardens were a few days ago in the full freshness of their summer beauty. Banks of Rhododendrons were a blaze of colour, and the air was filled with the perfume from the hardy Azaleas which form banks of yellow bloom. Many species of Rhododendrons have been planted of late years, and are succeeding well, while clearings have been made which open out vistas previously hidden by a too luxuriant growth. Malmesbury Carnations are in remarkable health, and no gardens show a more loving care in their up-keep than those of Dropmore.

**An exhibition of Chrysanthemums as grown for market** will be held in the Foreign Flower Market, Covent Garden (by permission of His Grace the Duke of Bedford, K.G.), on Wednesday, December 12, 1906. As the expenses of the market show will be defrayed by voluntary subscriptions, contributions to the prize fund are earnestly requested. The secretary is Mr. R. A. Whitty, St. James's Villa, Swain's Lane, Highgate, N.

**Herbaceous Calceolarias at Farnham Royal.**—Calceolarias follow the Cinerarias in Messrs. James and Son's nursery at Farnham Royal, near Slough, and the group in flower a few days ago comprised a remarkable series of colours, in which strong and soft shades prevailed, with occasionally a beautiful self quite worthy of a distinctive name. The plants are a

mass of bloom, and it is difficult to select one colour and declare that to be the most beautiful, a series of pale yellow, cream, and almost white enhancing the brilliancy of the clear rose, salmon, and blotched forms. There is nothing coarse in the texture or size of the flowers, but a refinement which is not always associated with the herbaceous Calceolaria.

**The Regello-cyclus Irises.**—Mr. C. G. Van Tubergen, jun., Zwanenburg, Haarlem, writes to say that the correct name for the new hybrid race of Irises, described in THE GARDEN for June 9, is Regello-cyclus, not Onco-Regelia.

**Gardeners' Royal Benevolent Institution: Annual dinner.**—The annual dinner of this excellent charity took place on Wednesday, June 13, at the Hotel Metropole, and the sum of £2,121 was raised. The Right Hon. Lord Balfour of Burleigh was the chairman, and the proceedings passed off with great success. The tables were magnificently decorated. A full report is given on another page.

**The Reigate Rose Show,** which is being strongly supported by most of the leading amateur and trade growers, will be held in Mrs. Simpson's grounds, Wray Park, on Friday, June 29. Many will remember how successful this annual show was a few years ago, and we are glad to hear that the revival bids fair to outshine its predecessor. Mr. R. G. West is one of the energetic hon. secretaries, and Mr. Alfred F. Blades is acting with him.

**Apple Hanwell Souring.**—Mr. Smith of Worcester, in his note in THE GARDEN recently, says that Hanwell Souring will keep till March. I sent you a sample on June 1 to show that his notice does not say enough for them. I have no elaborate and properly-designed fruit room as has your correspondent who sent you well-preserved fruits of Dumelow's Seedling. I have merely a spare room above stairs, and rather exposed to the sun. I quite believe that in a properly-constructed fruit room they would keep till August. I have also the old Northern Greening, deservedly praised by another correspondent, but not a great many of them, as they have not kept this year as well as they usually do; indeed, I hear from all quarters that Irish Apples have kept very badly this season. I do not know why, as last autumn was just the one to ripen them well. In February last there was only one fruit shop in Dublin out of the many that I visited which had any Irish Apples, and they were wretched things. Dumelow's Seedling never keeps with me beyond March, and the new Northern Greening never beyond February.—D. K., County Cavan.

**Messrs. John Waterer's Rhododendron show.**—Each year Messrs. John Waterer and Sons exhibit Rhododendrons during the month of June in a special tent in the Royal Botanic Society's gardens at Regent's Park, and it is always an exhibition well worth visiting, especially by those who are interested in this beautiful flowering shrub. The plants are finely grown, and represent the best varieties in cultivation. Most conspicuous, perhaps, for its peerless beauty is Pink Pearl, which has been shown on many occasions lately by this firm; another exceptionally fine variety, which was given an award of merit recently, is Gomer Waterer. The truss of bloom is enormous, and the firm rich petals are of a delicate blush colour. It is of strong growth, and should be in every collection of Rhododendrons. Another beautiful variety is Mum, the truss also large, but the colour is white, set off by a lemon centre. We also noticed splendid plants of Prometheus, concurrens, delicatissimum, the beautiful everestianum, Frederick Waterer, Lady Eleanor Cathcart, Lord Eversley, Marchioness of Lansdowne, Mrs. Holford, Mrs. John Penn, Mrs. Tritton, Princesse Hortense, and Princess Mary of Cambridge. Grouped with the Rhododendrons is Kalmia latifolia, which adds much interest to the display.





CARNATIONS: WHITE LAWSON, NELSON FISHER (CRIMSON),  
ENCHANTRESS (PALE PINK).





**The Japanese Primrose (*Primula japonica*) at Wisley.**—Visitors to the Royal Horticultural Gardens at Wisley recently have been more than charmed, they have been both surprised and delighted, with the great variety and beauty of the myriads of flowering plants of the Japanese Primrose growing there. For many years after its introduction, and not varying much in colour, *Primula japonica* was grown as a disappointing greenhouse plant. A year or two ago Messrs. Sutton and Sons showed, in a group of pot plants at the Horticultural Hall, how great was the variety in floral colourings, but it has been left to Wisley to show not only most remarkable variety but marvellous beauty created by it as a semi-ditch plant. Amidst all the beautiful things seen at Wisley nothing can or has so far excelled what has been shown this season by *Primula japonica*. In one retired spot that and *Meconopsis cambrica* gave beauty that was nothing less than entrancing.—A. D.

**Tobacco growing in Ireland.**—The subject of Tobacco growing in Ireland has been before the farmers of this country for several years, and Colonel Everard of Randlestown, County Meath, has made many interesting and exhaustive experiments regarding its culture. He finds it is quite feasible to grow Tobacco of a good quality in Ireland, and reports: "That the first experiment of growing Tobacco on a commercial scale in Ireland must be regarded as highly satisfactory." He very kindly writes me in regard to a query as to the finer qualities of Tobacco suitable for cigarettes, and states: "That light sandy soils will produce a good cigarette Tobacco. I have hopes of getting a cigarette Tobacco if I can get the yellow colour. I am trying thirty varieties this year, and two or three of them, if they succeed, will be worth £300 an acre statute at Amsterdam as cigar wrapper." The subject is one of great interest, and if Tobacco can be grown to a large extent a great native industry might spring up. The opinion of experts in America, to whom the Tobacco has been submitted, is that it is first-class. The cost of production runs at about £17 10s. per acre, and the net profit £11 16s. 8d. It should, however, be noted that the growing of Tobacco in Ireland is in no case permissible without special sanction being first obtained from the Board of Inland Revenue. The Treasury allow 1s. per lb. off the usual Tobacco duty.—WALTER SMYTH, *Holywood, County Down.*

**Some beautiful Rhododendrons.**—Even if the deciduous members of the genus (which to the gardener are always Azaleas) are excluded, a goodly number of Rhododendrons were noted at the Temple Show, and of Messrs. John Waterer's group of flowering specimens in pots it may be truthfully said that it formed one of the brightest features of the entire exhibition. Of course that magnificent variety Pink Pearl was strongly represented, while good examples of the newer White Pearl were also conspicuous, and yet a third member of this section, Mrs. E. C. Stirling, which was given an award of merit a short time since by the Royal Horticultural Society. It is certainly a handsome Rhododendron, but by no means the equal of Pink Pearl. The flowers, which are of a pleasing shade of soft pink, have in general appearance a suggestion of *R. caucasicum*, though they are borne much after the manner of those of Pink Pearl. A new variety in Messrs. Waterer's group was given an award of merit. It was named Marchioness of Tweeddale, and though somewhat in the way of an old sort (*W. E. Gladstone*), was decidedly superior to it. This new form has massive trusses of rich rosy red flowers, lit up by a blotch of pale yellow on the upper part of the interior. The variety Glory of Waltham, from Messrs. William Paul and Sons, a rich crimson flower with black spots, is likely to prove a decided acquisition. Cut blooms of some of the Fortunei hybrids, with their sweet

scented blossoms, were also noted. The Rhododendrons at the Temple were by no means limited to garden varieties, for Mr. G. Reuthe of the Fox Hill Nursery, Keston, Kent, brought up, as usual, an interesting series of out flowers, principally of Himalayan species, which succeed so well out of doors at Keston. Particularly noticeable in this exhibit were a very brightly coloured form of *R. arboreum*, whose blossoms were of a vivid scarlet-crimson tint; *R. Aucklandi* (*griffithianum*), and some of its hybrids; *R. campylocarpum*, one of the hardiest of the Himalayan kinds, and also remarkable for the colour of its blossoms, which are of a pale yellow; *R. Edgeworthi*, a greenhouse kind, with white, highly fragrant blossoms; *R. Falconeri*, large handsome leaves, and massive trusses of flowers, in colour white, spotted inside with purple; *R. Keyi*, with clusters of long tubular flowers, orange, tipped yellow; *R. kewensis*, a hybrid between *R. Aucklandi* and *R. Hookeri*, with pink blossoms; *R. Roylei*, with drooping crimson-coloured wax-like blossoms, after the manner of *R. cinnabarinum*, which was also shown; and *R. Thomsoni*, a deep blood-

## THE ROSE GARDEN.

### PLANTING OUT MARECHAL NIEL ROSES.

**N**OW is a favourable time to plant out a houseful or less of this beautiful old Rose. Plants grafted this season and now in 8-inch pots, and about 5 feet to 6 feet long, would soon take hold of the soil and make rapid growth by autumn. It is necessary to give the plants a good border, almost as carefully prepared as one would a Vine border. Trench the border set apart for the Roses to a depth of 3 feet, and give artificial drainage if required. If turves are available put these grass downwards upon the drainage, then return the soil, having mixed with it some well-decayed manure and half-inch bones. Be careful in turning out the plant not to disturb the roots more than can be helped, and see that the plant is well watered before planting it. Turn it out very carefully, but only just remove the crocks. The side may be gently prodded if roots



*DAPHNE RUPESTRIS.* (Shown at the Temple Show by Mr. R. Farrer, Clapham, Lancaster.)

red flower, which is usually over before the end of May.—H. P.

***Daphne rupestris* (syn. *D. petraea*).** This rare and beautiful *Daphne* was among the more noticeable of alpine at the recent show in the Inner Temple Gardens. It is by no means a novelty, the present writer having known it for more than thirty years, but is quite willing to admit never having seen the plant flowering so abundantly or so rich in colour as in Mr. Farrer's group at the above exhibition. In all probability Mr. Farrer had himself seen the plant growing in its native haunts in the Tyrol. The position, sheltered as it was by a bold out-standing rock, was an ideal one for this *Daphne*, and with its roots running deep into a cool crevice of peaty soil success was ensured. We know of no species of this genus so exquisitely beautiful in colouring, the rich intense pink of which defies description. The plant is rarely more than 3 inches to 4 inches high, the rounded heads of blossoms nestling closely together above a tuft of hard linear leaves and stems that constitute the bush of this very charming diminutive alpine rock shrub. So dense was the flowering example in the group of Mr. Farrer's from the Craven Nursery, Lancaster, that the foliage was almost if not entirely hidden from view. *D. arbuscula*, with pink-coloured blossoms, is a pretty companion for the plant under notice.—E. H. JENKINS.

are plentiful, but the ball of earth being quite new will not stand much prodding. Heat and moisture will compel rapid growth, and by September air may be freely given to complete the ripening. The points of long growths must not be pinched out until October, and there is a chance of the plants starting out. Growths that break out from the main shoots should be cut back hard, quite close to the stem. During the autumn months, say at the end of September or October, a little weak liquid manure may be given at first, afterwards increasing this a little. The dwarf sorts, such as Liberty, Richmond, and Mme. Abel Chatenay, if planted now from small pots and put into good prepared soil will make growths quite 4 feet high by next March. P.

### ROSE REVE D'OR.

**WHEN** planted at the foot of a south wall this Rose flowers early in the season. It opened its first flowers in these gardens on the 10th ult., when they were most welcome. The buds are very numerous, and should be well thinned, when most charming flowers of a buff yellow may be obtained. This Rose is a rampant grower, free flowering, and hardy. The removal of old wood frequently causes canker and the ultimate death of the plant. After flowering the weakly shoots should be removed, and the following spring the unripened tops of the strong shoots cut back. Although early flowers are obtained



from plants on a south wall, the Rose will grow quite as well in other positions providing the soil is suitable and well drained, as perhaps there is no other climbing Noisette Rose (excepting *Maréchal Niel*) to the welfare of which a cold, wet soil is so disastrous. *Rêve d'Or* is one of our best Noisette Roses; it was introduced by Ducher in 1869.

*Munden Gardens, Watford.*

C. RUSSE.

### ROSE MME. LEON PAIN (HYBRID TEA).

THIS beautiful Rose promises to be one of the best novelties of last year, and will become as popular when better known as *Pharissier*. What I like about it—in fact, both these sorts—is their vigour, and, in the case of *Pharissier*, which is a reputed seedling of Mrs. W. J. Grant, we have an instance of a weakly grower producing a

will be an excellent sort for growing in pots, planting out under glass for bedding outdoors. The *Caroline Testout* group has been largely increased during the last few years, and I shall not be surprised to find in a few more years there will be a complete range of colour, bearing the impress of the mother variety in growth and free-flowering qualities. We have already in whites or blush such as *Irene*, *Königin Carola*, and *Admiral Dewey*; rose-pink, *Gabrielle Pierrette*, *Marie Croibier*, and *Countess Cairns*; crimsons and red, *George Laing Paul*, and we only now require some golden yellows and a few more rich crimsons and scarlets to complete what cannot fail to become a popular group. P.

### A BEAUTIFUL ROSE.

THE lovely blending of colour and habit in the new Hybrid Tea Rose *Lady Wenlock* reminds

who can admire this type, as they usually compensate the grower for want of fulness in the extra abundance of their buds and blossoms. P.

## THE GREENHOUSE.

### TUBEROUS BEGONIA ALICE.

AT the recent Temple Show Messrs. Blackmore and Langdon, Twerton Nurseries, Bath, exhibited some new and very beautiful varieties of tuberous *Begonias*, three of which obtained an award of merit. *Begonia Alice*, shown in the accompanying illustration, is a double flower of perfect form and lovely colouring, fawn, with a well-defined margin of rose. The edges of the petals are crinkled, thus adding to the attractiveness of the flower. This variety, Mrs. J. B. Blackmore (salmon-rose), and *Millicent* (clear pale salmon) are three of the finest double varieties we have seen.

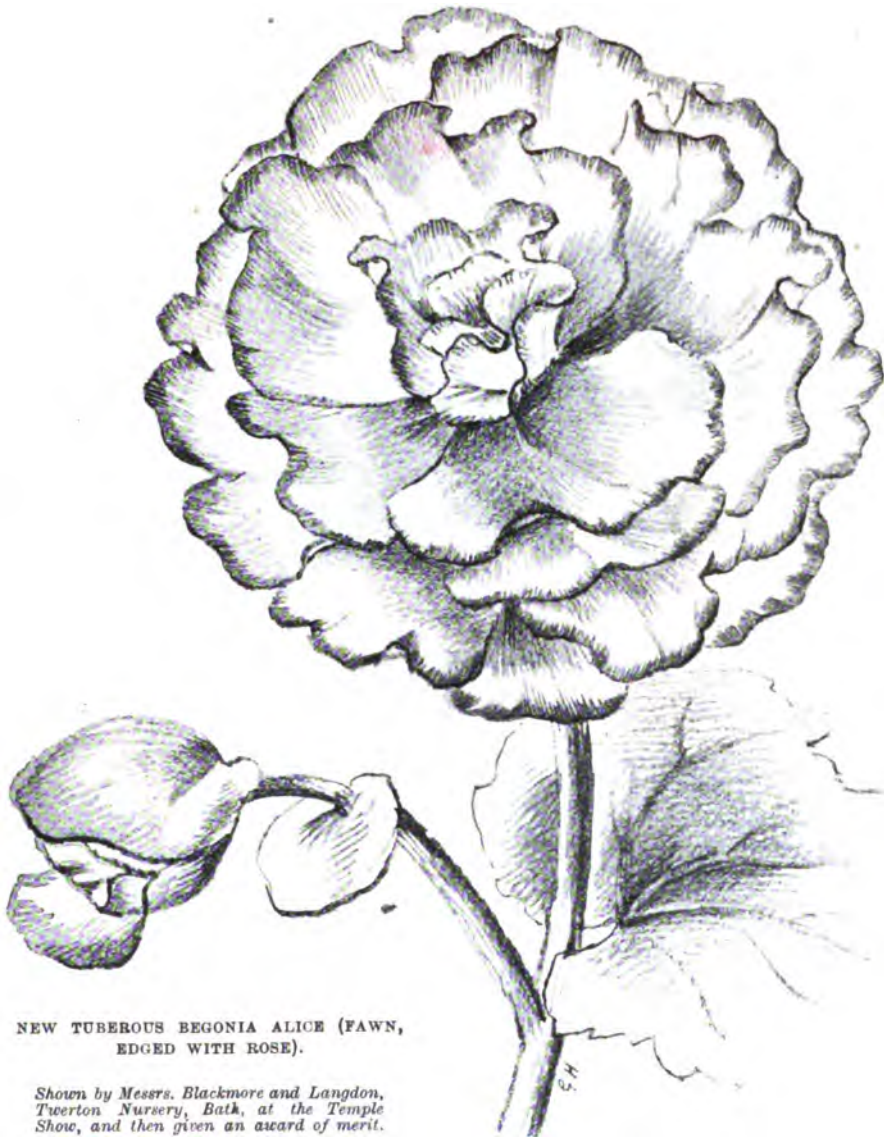
### MALMAISON CARNATIONS.

#### HINTS ON THEIR CULTURE.

CARNATIONS are so beautiful and useful that they should occupy a prominent position in every garden. Where facilities for their culture are provided there is no flower that is prized so much, or that is more satisfactory, than a good *Carnation*.

**LAYERING.**—This should be done as soon as the plants go out of flower. Layer them in cold frames, and those which have been occupied by *Violets* will do well. Have in readiness a compost of two parts loam, one of leaf-soil and peat, with a little wood ashes, and some sharp sand, well mixed together and passed through a half-inch sieve. The loam, leaf-soil, and peat should be sterilised, to kill all insects that are in the soil. Have in readiness plenty of pegs. Those made from *Bracken* stems answer very well. The plants should be knocked out of their pots and planted in the frames. Select strong healthy shoots which should be denuded of a few leaves at the base where the tongue is to be made. Place 3 inches of the prepared soil immediately under each layer. After the tongue is made the layer must be carefully pegged down and keep the incision open. When the layering is complete give the layers a good watering through a fine rose. The lights of the frame may then be put on and raised at the back. Keep plenty of air on night and day, but on no account must the lights be closed at any time or damping will ensue. Shade lightly from bright sun until the plants have begun to root, when the shading can be removed and the plants gradually exposed.

**POTTING.**—In from a month to six weeks the layers will be sufficiently rooted for potting. Sever them from the old plants at least a week before potting. Use pots 4 inches in diameter, and a compost of two parts good loam and one of leaf-soil and peat, mixing with it some wood ashes and old mortar rubble broken up finely, with sufficient coarse sand to keep the soil open. Lift the plants with a good ball and pot moderately firm. Place the plants in a cold frame and shade for a few days from bright sun until the plants have recovered. Immediately these pots are filled with roots, the plants should be potted in their final pots, those 6 inches in diameter. Use the same kind of soil as before but in a rougher state. The plants should then be placed in a light airy house with a temperature of 45° by night and 50° by day. Admit air on all favourable occasions, and never keep them closed up except in sharp weather. Great care must be taken with watering, especially through the winter months, always remembering to keep them on the dry side. As soon as the plants begin to show their flower-buds they will be greatly benefited by occasional top-dressings of *Clay's Fertilizer* or *Bentley's Carnation Manure*, also by a little clear



NEW TUBEROUS BEGONIA ALICE (FAWN, EDGED WITH ROSE).

Shown by Messrs. Blackmore and Langdon, Twerton Nurseries, Bath, at the Temple Show, and then given an award of merit.

vigorous seedling. Mme. Leon Pain was raised by M. Guillot, to whom we owe a debt of gratitude for his many sterling novelties. It is a seedling of *Caroline Testout* crossed with *Souvenir de Catherine Guillot*. The orange shading of this latter is imparted to the Rose under notice, more especially in the centre of the blossoms, the other tints being silvery flesh and salmon. The flowers are somewhat thin, but of superb shape, and produced on stiff stems. It

one of three popular Roses—*Gustave Regis*, *Mme. Pernet-Ducher*, and *Mme. Charles*. I should imagine that the *Rose Lady Wenlock* was raised from one of the two first named, as it possesses much of the semi-double character of these sorts, but there is a rich apricot shading upon the buff or nankeen yellow ground. There seems to be quite a number of these semi-double Roses, and they are exceedingly beautiful from a colour point of view alone. But there are many

soot water. If larger specimens are required plants may be grown on the second year; indeed, it is very profitable to grow plants on the second year, or even the third. As soon as the young plants have finished flowering free them from all withered leaves, and shift them on into pots 8½ inches in diameter. Use the same kind of soil as that recommended for the final potting of young plants. Place the plants in a cold frame in a sunny aspect. The lights may be left off altogether except when very wet weather prevails. By the end of August the plants may be taken to a light airy house and treated the same as recommended for young plants. Carnations are subject to greenfly, which can easily be eradicated by fumigating with Richard's XL All. To be successful in their general management careful attention must be paid to watering, airing, and the sterilisation of the soil for each potting, and in keeping the plants healthy, robust, and free from aphids.

Danesfield. G. W. SMITH.

## RHODODENDRON MANGLESII.

THIS—so called after the grower, Mr. Mangles, so well known in connexion with these lovely flowering shrubs—is a hybrid from griffithianum, and the flowers are very large and trusses a beautiful even shape. Its buds are a rosy pink, but when quite open are white, spotted with brown. It blooms very freely. The specimen here shown was photographed in Donegal, where Rhododendrons grow to perfection in the peaty soil.

S. M. WALLACE.  
Lough Eske, County Donegal.

## THE KITCHEN GARDEN.

### MUSHROOMS IN MEADOWS.

[In reply to "B. R. A."]

THE cultivation of the Mushroom in properly-constructed houses, sheds, and out of doors on beds of manure is now reduced to an exact science, and the cultivator versed in the business looks with confidence for the return of good crops. It is not so with the artificial growth of Mushrooms in fields and meadows. The Mushroom is very curious and erratic in its behaviour when an endeavour is made to grow it in this way. It is quite possible to plant spawn in grass land in a haphazard way, and in the following autumn, or it may be the succeeding year, to be rewarded with a prolific crop of Mushrooms. On the other hand, it is quite possible to take great pains to plant the spawn, and the result to be utter disappointment. The reason for this lies in the fact that the conditions favourable to the growth and spread of the spawn might be present in the one position and absent in the other.

Mushrooms will not grow on gravelly, shallow, and hot, poor land, neither will they grow in cold, badly-drained soil. They will not succeed when planted close to the stems of trees, but a position shaded in the middle of the day suits them well. They will succeed on any grass land where the soil is of fair depth, say, 12 inches to 18 inches, and well drained. Anyone contemplating the growth of Mushrooms in this way would be well advised to do so, in the first place,

on a limited scale until they were satisfied with the result, as spawn is rather expensive to buy. If successful, then they could extend their operations.

The way to proceed is as follows, and now is the time to plant the spawn: With an edging knife cut a piece of turf 2 feet square, take it up with a turving iron 3 inches thick (having first mown off the long grass), dig out a hole 1 foot deep, place at the bottom of it 6 inches of fresh horse manure, with one part of the shortest of the straw added. Ram it down fairly hard, and place on the top of it 3 inches of the soil taken out of the hole, pressing this also fairly firm, and planting the spawn in it. Spawn is usually sold in bricks 9 inches by 5 inches. These should be broken in half first, and then each half into four pieces.

These pieces should be planted 5 inches apart, and deep enough in the soil to allow of their being just covered. Press the soil moderately firm over them, and finish off by putting back the turf on top in its old place, ramming it firmly down, and covering over with half-an-inch of soil to prevent the sun burning up the turf, and giving it a good watering if dry. All that remains to do now is to wait until the autumn of this or next year, according as to whether the conditions are favourable or otherwise. If you are favoured with success, you may then with confidence extend your operations; on the contrary, if failure results, no great harm will have been done. It is of the greatest importance to obtain spawn of first quality, and not more than eight months old.

ED.

### WINTER CABBAGE.

It may not be generally known, especially among amateurs, that to have nice young green Cabbage at Christmas and in early spring it is necessary to sow about half-an-ounce of Cabbage seed now. I would recommend either Ellam's Early or Wheeler's Nonpareil. Most Cabbage seed of the ordinary sorts will bolt or go to seed if sown

before August, but either of the above will not do so. The young plants should be transplanted into nursery beds in August, and finally planted out in October. These will be succeeded by the regular autumn sowings planted out in late spring. I tried this plan and succeeded admirably.

Roscrea.

R. M. MILLER.

## THE FRUIT GARDEN.

### STRAWBERRY LAXTON'S FILLBASKET.

GARDENERS who intend making a change in their varieties of Strawberries for forcing will do well if they give the above named a trial. As last season we were somewhat short of Royal Sovereign we decided to give Fillbasket a trial, as it bears so freely outside. Our plants, fifty in number, were brought under glass on March 9, and forced very gently. The result has been a splendid crop of ten and twelve berries on a plant, many of them equal to those of Royal Sovereign in size and flavour. The first picking was made on May 7. We hope to give a much better and earlier trial next season, and I will, with the Editor's permission, report on the same.

H. WILSON.

Cole Orton Gardens, Ashby-de-la-Zouch.

### USELESS CHERRY CULTURE.

It is not an uncommon thing when fruit tree orchards are being planted to include one or two standard Cherries with the object of getting a few of these delicious fruits. What an absurd idea it is, for in nine cases out of ten, no matter how well these solitary trees succeed, nor how well they bear, the grower never gets any fruit, because the birds appropriate it all before it is ripe



RHODODENDRON MANGLESII IN A DONEGAL GARDEN.



enough to eat. It is one thing to protect a Cherry tree in a garden from birds by netting, but it is entirely a different matter when one has a large standard in an orchard, and there is little satisfaction or profit in growing cherries on this system unless one has sufficient trees to warrant the employment of a man or boy to keep the birds away when the fruit is ripe. There is no fruit for which birds display a greater liking than Cherries, and in Kent, where the fruit is grown extensively, protection from birds is a serious item in the labour bill. Quite recently I was talking to a man who has two or three Cherry trees in his orchard, and though they have been there ten years or more, he has scarcely had a pound of fruit from them simply on account of birds. I contend that such Cherry culture as this is useless, and the space would have been much more profitably occupied if good Apples had been planted. H.

## TREES & SHRUBS.

### THE SPINELESS BRAMBLE

**A**MONG the many wonderful plants whose origin has been attributed to the skill of Mr. Luther Burbank is one which has been described as a spineless Blackberry, and in a long article which appeared in the *Century Magazine* early last year, describing Mr. Burbank's wonders, this Blackberry is referred to. It would be interesting to see what this plant is like, and whether it resembles the Spineless Rubus as grown at Kew. The Kew specimen is known under the name of *Rubus ulmifolius* var. *inermis*, and it has been cultivated in the Rubus collection, near the south end of the temperate house, since it was first received in 1877. In general appearance it is quite distinct from the type, and also from any other species. It is of weaker habit than *R. ulmifolius* and the double-flowered forms. The branches grow 10 feet or 12 feet in length, and are quite destitute of anything approaching the nature of a spine, but are rather prominently angled; the leaves are moderate in size, with a silvery under-surface. In the way of flower and fruit, little can be said in its favour, as neither is very conspicuous, the principal interest in the plant being in its unarmed branches. It does not appear to be at all common, and rarely, if ever, occurs in a trade list. W. D.

### THE BIRD CHERRY.

(*PRUNUS PADUS*.)

THIS is not seen in gardens so much as it deserves to be, combining as it does freedom and beauty of flower with extreme hardiness. It is found scattered throughout Europe and Asia, and in addition to the type, in itself a beautiful plant, there are several varieties, some of which are very handsome, and well deserving cultivation. In growth it is a large bush or small tree, the natural growth being to form an upright bush with several stems springing from the base; but by keeping these out away in a young state a small standard can be formed which will develop into a well-balanced ornamental tree in the course of a few years. The flowers appear in early May in the form of half-drooping racemes 4 inches to 6 inches in length, and are individually pure white, small and star-like, and with conspicuous yellow stamens in the centre. The

leaves are oval, dark green in colour, and have finely-serrated edges. The Bird Cherry grows freely in almost any soil or situation, but thrives best in a moderately dry loam, where the growths come stout and sturdy and the flowers are freely produced. The best of the varieties are var. *aurea*, with golden foliage; var. *flore-pleno*, with rather larger semi-double flowers borne in long racemes; var. *heterophylla elegans* variegata, with variously out leaves variegated with pale yellow or white; and var. *stricta*, with an upright and very free-blooming habit. Besides these there are seedling forms occasionally met with, in which the racemes of flower reach a length of 9 inches to 1 foot; but none of these

### SOLANUM JASMINOIDES.

THIS beautiful flowering climber is especially valuable by reason of its extended period of bloom. On favourable seasons the earliest blossoms may expand towards the close of April or during the beginning of May. From that date the white flower-clusters slowly increase in numbers, until in August the whole plant is a snowy cloud of bloom.

No diminution of blossom is apparent during the month of September, and in October specimens in the south-west are still decorative objects, while in November and December a few scattered bloom-clusters may be described, and in sheltered sites a stray flower or two



SOLANUM JASMINOIDES OVER SHED ON THE COACH DRIVE FROM DARTMOUTH TO KINGSBRIDGE.

have received a distinctive name, though some of them deserve it more than some of the other varieties that are not mentioned above and which are only of botanical interest. *P. Padus* can be raised from seeds, which are freely produced; while the varieties are best increased by budding on stocks of the type.

Bagshot, Surrey.

J. CLARK.

### CYDONIA JAPONICA CARDINALIS.

THIS is one of the most brilliantly tinted of all the numerous forms of the Japan Quince, and I know of no brighter object on a wall at this season than a well-flowered specimen. As it can be obtained at a very moderate cost, intending planters would do well to bear in mind that for richness of colouring it stands out almost by itself, hence it should be preferred to any of the others. Apart from the value of this *Cydonia* as a wall plant, it also forms a handsome bush; indeed, it is surprising that we do not find it more often treated in this way, as it is quite hardy, and flowers well as a shrub in the open, though of course the blossoms are late in expanding. T.

is often to be found in January and February. This *Solanum*, though it can scarcely be termed hardy, is practically so in South Devon and Cornwall, where it is rarely injured during the winter. Even in exceptionally severe winters, such as that of 1895, it was only cut back and broke again strongly after the long-continued frost gave place to warmer weather. Of late years it has become quite common in the south-west, having been distributed freely to cottagers from the larger gardens, and, in passing through that district, instances may be noted where it has entirely veiled cottage walls with billows of white blossom or, ascending the thatched roof, has encircled the chimney with a wealth of flower from which the blue smoke wreaths drift slowly upward.

The accompanying illustration shows a scene that may be viewed any summer or autumn day on the coach drive from Dartmouth to Kingsbridge. After passing the village of Stoke Fleming the road descends a long hill, at the base of which a lovely valley opens out upon the quiet beach of Blackpool. Up the valley and skirting a trout stream runs a lane, at the side of which, and only a few yards distant from



the main road, so that it is in full sight of all passers on the coach or other vehicles, is the shed smothered in *Solanum* blossom. S. W. F.

## THE GLADIOLI.

IT is not much more than half a century ago that the hybridist first turned his attention to some of the members of the *Gladiolus* family. They are chiefly natives of the Cape, although a few species are found in Europe and Western Asia. The best-known European one is probably the common Corn Flag (*G. segetum*), with purple-red flowers, found all over the Mediterranean region. It is, however, chiefly from the Cape species that the present beautiful race of garden flowers has been evolved. They are of great value in many ways. There is now a wide range of hybrid varieties, of which perhaps the most important belong to the *gandavensis* and *brenchleyensis* sections. King of Gladioli, which will be figured shortly, is one of the newer creations of the firm of Messrs. Kelway and Son, who have done so much towards making the Gladioli one of the most beautiful and valuable classes of bulbous plants that are grown in gardens. In addition to the graceful and distinct beauty the various forms possess, there is the great advantage that these plants are quite amenable to cultivation, thriving well under ordinary conditions. To obtain first-class results, however, it is necessary to pay more attention to the preparation of the soil before planting, while for extra fine flowers liquid manure should be given occasionally before the buds open. Gladioli planted in groups between such foliage plants as *Cannas* are very effective, while they may also be used with herbaceous *Pæonies*, *Phloxes*, and *Kniphofias*. When planted like this it is necessary to make a hole 1 foot to 2 feet or more in diameter and nearly as deep, and fill in with good loam and well-decayed manure for each group.

When planted in beds by themselves the whole bed may be deeply dug after a liberal supply of manure has been given. To extend the season of blooming the corms may be planted at intervals of a fortnight, beginning in February, till the end of May. The corms should be about 3 inches below the surface, and, if the soil is wet and heavy, a layer of sharp sand below them would be beneficial. After this little or no attention will be required except to keep the ground clear of weeds till the flower-spikes are produced. In a dry season a good mulching of manure should be given to keep the soil cool and moist, as well as liberal supplies of water at intervals during the flowering period. It is important to lift Gladioli corms before the foliage dies down, as it is found that they retain more vitality than when left in the ground till the foliage turns yellow. After lifting the corms should be spread out in a dry, airy shed, or even in the open when fine, and thoroughly dried off before being stored away for the winter. No race of plants give richer or more distinct beauty to the late summer garden than the *Gladiolus*, and it is always welcome, especially when the finer sorts for colour are well grouped.

Belonging to the various strains there are a great number of handsome forms of surpassing beauty. Some of the earliest belong to the *brenchleyensis* section, with brilliant vermilion-scarlet flowers opening just before

the *gandavensis* section and Kelway's large-flowering varieties. One of the most useful for cutting is *G. Colvillei*, which flowers in May and June, with rosy purple blooms, and its varieties *alba* and *The Bride* with pure white flowers. *Gladiolus Kelwayi* is the name given to a strain which has been raised by this firm, with long spikes of large and richly-coloured flowers. There are many beautiful sorts of various shades of scarlet, crimson, white, yellow, purple, and pink.

Another fine race is *G. Childsii*, which includes many superb varieties. Through crossing *G. gandavensis* with *G. purpureo-auratus* another set has been created, and is included under the name *G. Lemoinei*, or *Butterfly* hybrid, with large spotted flowers. Among so many beautiful sorts it is difficult to pick out any that are superior to the others, as this is always a matter of individual opinion, but the sort named *King of Gladioli* is a plant well deserving the distinctive name given to it. Other varieties with similar large flowers, but of many shades of colour, are very numerous, and a glance at the catalogue of Messrs. Kelway and Son will reveal the immense range of colour and form contained in this popular family.

In addition to their value as border plants, the Gladioli are useful for the greenhouse. Corms potted up now in a compost of loam, well-decayed manure, and sand, may be had in flower from September to November. The pots should be plunged in ashes till the flower-spikes show, when they may be removed to the house. W. IRVING.

## PELARGONIUMS AT PENZANCE.

OVER the greater part of England *Pelargoniums*, both of the zonal and Ivy-leaved sections, must be treated as tender plants, requiring yearly propagation. In favoured spots in South Devon and Cornwall, however, they are practically perennials, and retain their beauty and proportions for years. In Penzance there is a cottage the walls of which are covered to the eaves with a great zonal *Pelargonium* that is often in good flower in October. Instances are common of large spaces of wall being veiled by Ivy-leaved *Pelargoniums*, the varieties generally employed being *Mme. Crousse*, as shown in the accompanying illustration, or *Souvenir de C. Turner*. Both are pretty, but it is doubtful if the clear salmon-pink of *Mme. Crousse* is not preferable, when seen in a mass, to the brighter colour of the latter. Four

years ago a flat bed in a garden at the mouth of the Dart was filled with small plants of *Mme. Crousse*. All are now alive, and have formed an interlacing mass some 2 feet in height, which is covered with flowers in the summer. The plant shown in the illustration is growing in the garden of Strete Manor House, the residence of Mr. J. L. Toll. The house is situated in the corner of Start Bay, South Devon, and is only a few yards higher than the beach it faces. From the house the Kingsbridge Road runs between the sea and the extensive fresh water mere known as Slapton Lea. Many good things grow in the gardens. In August *Mandevilla suaveolens*, covering a portion of the house, is white with its scented blossoms and the beautiful clear blue of *Ipomoea rubro-cerulea*, here grown in quantity in the open, strikes a note of colour rare in gardens. As has been pointed out previously in these columns, where the subject has been illustrated, this lovely *Ipomoea* can easily be grown in the open to flower during the summer and autumn. In the same garden *Arctotis aspera arborescens* forms a bush 3 feet in height and 6 feet through. S. W. FITZHERBERT.



IVY-LEAVED PELARGONIUM *MME. CROUSSE* IN A SOUTH-WEST GARDEN.

## GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**B**UDS AND "BREAKS" OF CHRYSANTHEMUMS. — During the month of June and the early part of July buds will be formed which will cause breaks, or pinching will be done to induce the plants to produce the breaks which are to be grown on and bear the coveted crown buds in August and the early part of September. The beginner is often very much puzzled as to what really happens to the plants when this bud forms in June. A great deal depends upon the correct treatment of the plants at this critical stage of its growth. In the accompanying sketch a bud A will be seen. Directly this bud formed the single stem of the plant ceased to grow as rapidly as before. The bud had arrested the growth of the one stem, but had caused side shoots to appear, as shown at B B B. More side shoots would



"TAKING" CHRYSANTHEMUM BUDS.

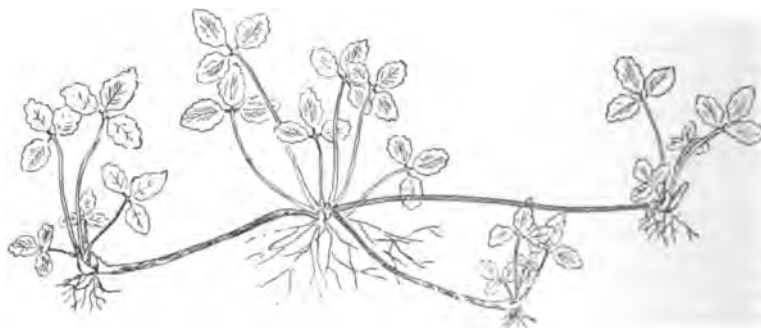
grow also, but where large exhibition blooms are required only three of them should be retained, and those three are shown in the sketch. All shoots appearing on the main stem below them must be removed while in a very young stage of growth. So far during the season the plant has been confined to one stem; but from the present onwards there are three branches to attend to. All side shoots must be pinched out directly they are large enough to handle, but the points of the branches should be kept free from insect pests and injury of any description, as the first crown bud which develops into an exhibition bloom forms there. The bud A may be removed as soon as it is large enough to take hold of; but if left on the plant the side shoots would grow and rob it of all nourishment, then it would shrivel up in due course. Stakes should be

placed to the young side branches at an early stage of their growth so that due support may be afforded them, otherwise they will be lost through breaking away from the main stem. Train these branches at least 8 inches apart.—AVON.

*How to Increase Strawberries.*—The best way to increase the Strawberry is by means of what are termed "runners." Runners may be easily recognised. If a Strawberry plant is examined during the summer time, it will be noticed that several long stalk-like growths proceed from it at various points. At the end of each of these there is a tiny plant, and sometimes the stalk-like growth continues beyond the first small plant, and may give rise to one or even more of these plantlets. However, only the first of these small plants should be made use of. If the stalk-like growth continues beyond the first it must be cut off. By "layering" the runner is meant the method employed to induce it to form roots, and so become an established plant. The simplest way of all, although not the most satisfactory and not the one to be best recommended, is simply to loosen the soil around the parent plant with a trowel or hand-fork, and to peg four or five runners into it, pressing the tiny plants down so as to make them firm in the soil. Another method of layering is to peg the runners into pieces of turf placed around the parent plant.

*Layering the Runners.*—The best of all methods, however, is to layer them into small pots of 2½ inches diameter. First, choose four or five good runners from the plant and cut off all the others, taking care to use the first plant on the stalk. These small pots should have a piece of turf in the bottom, which will serve as drainage, and then be filled to the top with sifted loamy soil. They should be watered the day before they are to be used, so that the soil may be moist. Dig out a hole in which to place each of the small pots, for by having them buried to the rim in the ground in this way the soil in them does not get dried up so quickly as if the pots were simply placed upon the ground. Having placed the pots in position around the parent plant and selected a runner for each pot, by means

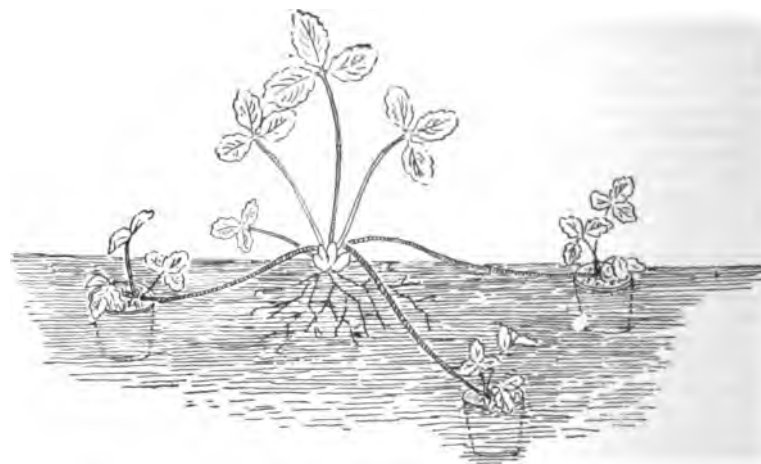
of a small wooden peg—or a hairpin will do—fasten the small plant into the pot. The peg or hairpin should be put in over the stalk just behind the small plant, so that the latter may be pressed into the soil. It is important that the soil in the small pots should not be pressed firm; they should simply be filled and the soil allowed to settle from watering only. It is then



STRAWBERRY PLANT WITH RUNNERS.

an easy matter to press the base of the small plant right into the soil. Roots will be formed in a very short time indeed. At layering time the tiny plants often have roots already. The latter half of June is the best time for layering plants. Great care must be taken to water them well during hot, dry weather, for naturally, unless the soil is kept moist, the young plants will not root freely. For some six weeks they will need no further attention than watering, although they would be all the better if syringed in the evenings of hot days.

*In About Six Weeks' Time*—say, the first week in August—they will be well-rooted sturdy little plants, and may then either be planted out on a plot of ground which has been well dug and enriched with manure to bear fruit the following year, or they may be potted up into pots of 6 inches diameter for cultivation under glass to



STRAWBERRY RUNNERS LAYERED IN SMALL POTS.

bear fruit the following spring. One of the secrets of success in the cultivation of Strawberries is to get the layers in in good time, so that the plants may be planted out in their permanent quarters early in August. They then get well established and make good growth before



the winter, and invariably bear good crops of fruit the following summer.

In the *Accompanying Illustrations* a good idea is given of the way in which the runners are produced by the parent plant, and of the manner of layering them in the small pots, which are shown plunged to the rim in the ground.

### TOWN GARDENING.

**Work Among the Roses.**—A sharp look-out must be kept for a maggot which, if not destroyed, will soon play sad havoc with the young shoots and flower-buds. Judging from complaints received from many growers, the maggot is unusually abundant this season. The first indication of their presence is to be found in curled leaves at the ends of young shoots. If the leaf is picked off and unrolled a maggot will be found inside. This pest seems to attack the shoots just when the flower-buds are beginning to show, and, not content with damaging the leaves, quickly makes its way to the bud, and in a very short time eats it away. We have this year seen a number of Roses ruined, so far as the first crop of flowers is concerned, in this way. The only way of dealing with the maggot seems to be that of hand-picking; this is very tedious work, especially if one has a number of plants, but apparently it is the only thing to do. Care must be taken that the maggots do not fall out as they are apt to do when one is searching for them. All weakly growths upon bush, standard, and climbing Roses should be removed; they are useless in themselves, and they hinder the free development of the stronger shoots. The vigorous growths which are pushing up from the base of climbing Roses should be loosely tied up with Raffia tape, otherwise they are liable to be broken by a passer-by or by the wind. Green and black fly is now spreading rapidly, and the shoots of all plants affected should be syringed with some insecticide, such as Quassia Chips, Bitter Oil, or some other of the many insecticides advertised. It is not of much use to syringe the plants one night only, it should be done two or three nights in succession, then one is almost sure to get rid of the pest.

**Sweet Peas.**—If the Sweet Peas were given small, twiggy sticks some three or four weeks ago, they will by now have reached the top of these, and it is quite time that the larger sticks were put in. Sticks 4 feet or 5 feet high and as twiggy as possible should be selected. If the plants were in tubs, it is a good plan to run a piece of Raffia tape around the base of the sticks so as to tie up any which may not have taken hold of the small sticks. If they are left to tumble about instead of being trained upwards, they often get spoilt altogether. Sweet Peas in tubs are now growing freely, and require a fair amount of water. Once the soil in the tubs is allowed to get dry the plants are almost certain to get spoilt. If the tubs were filled with fairly rich soil they will not yet need any manure.

### THE GREENHOUSE.

**The Greenhouse.**—This is a term of wide application. It is used for a structure from which in winter frost is just excluded—say, where a lowest minimum of 40° rising to 50° is maintained—or one in which throughout the winter the temperature ranges from 45° or 50° to 60°. Those two houses are available, as may well be understood, for quite different classes of tender plants, for in the first-named a great many plants, such as Fuchsias, Pelargoniums, Heliotropes, Tuberos Begonias, and similar things may pass the winter. Very few flowers can be obtained in such a structure at that season, the warmer structure being necessary for their development.

**The Colder Greenhouse.**—This may be readily kept bright for nine months of the year—that is,

from the middle of February to the same period of November. At the first-named season various bulbous plants that were potted during the preceding autumn, placed out of doors, and with the advent of the New Year, or even earlier, according to their development, taken under glass, will be in flower. Among these may be mentioned Hyacinths, Tulips, Daffodils, Scillas, &c. Soon after this, various hardy shrubs, the Lyre Flower or Bleeding Heart (*Dielytra spectabilis*), Azaleas, Lily of the Valley, Chinese Primulas, and Persian Cyclamen are plants that will expand their flowers. By the time they are passed, the numerous summer flowers begin to open. From June until September there is no trouble whatever in maintaining a display, after which it will be necessary to depend principally upon Chrysanthemums. To make a bright display at that period, the scarlet-flowered *Salvia splendens* and the bright blue *S. Pitcheri* are particularly valuable. With regard to the management of such a structure throughout the year, a convenient time to begin will be January.

**A Year in the Greenhouse.**—At the beginning of the year the bedding plants and such things are practically dormant, and they consequently require very little water, only sufficient, in fact, to keep the soil slightly moist. By this is meant, not to give dribblets of water, but to make sure that it is needed before any is given, and then let it be sufficient to moisten the ball of soil thoroughly. After this give no water until the soil is dry. Such things as bulbous plants, Azaleas, Chinese Primulas, and other subjects that are developing their flowers, will need more water, but at the same time it must not be overdone. Of the different bedding plants, zonal Pelargoniums, or, as they are more generally called, "Geraniums," are particularly apt to "damp" or rot off in the depth of winter, especially if they have been kept rather wet. To prevent this as far as possible, not only should the watering be carefully done, but the plants placed in as light a position as can be found, while, when the weather is mild, a free circulation of air is very beneficial. One important point, too, is the removal of any signs of decay that may appear on the foliage, for one decaying leaf will contaminate many others. Absolute cleanliness is essential. As the season advances, more air and water will, of course, be required. With the return of spring, coddling must be especially guarded against, for if kept too close and shaded at that season, an attenuated growth and consequent liability to insect pests is sure to result.

(To be continued.)

### THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, W.C.

NOTEWORTHY FLOWERS FROM MESSRS EDWIN HILLIER AND SONS, WINCHESTER.

The following interesting flowers have been sent from High Street, Winchester, by the above-named firm:

**Abutilon vitifolium.**—We are always pleased to see the beautiful flowers of this Abutilon, which in this case were taken from a bush 10 feet high and 5 feet through, "a magnificent picture, the

plant covered with the beautiful pale lavender flowers. It stands in the open nursery border, and has passed the last three winters uninjured."

**Olearia stellulata.**—Messrs. Hillier send two forms of this shrub, one with larger flowers, which appear late, and the shrub is more vigorous in growth. Both forms are, however, worth the gardener's attention.

**Deutzia discolor grandiflora.**—A spray of a very pretty rose-coloured Deutzia; a shrub for the higher parts of the rock garden.

**Viburnums.**—We renew acquaintance with the beautiful *V. macrocephalum* and *V. tomentosum* var. *plicatum*, or the Chinese Guelder Rose. We regard the last-mentioned as one of the most useful of garden shrubs, its spreading growth, deep green foliage, and wealth of white flower-clusters rendering it quite distinct from the rest of its group.

**Tree Lupin (*Lupinus arboreus*) Snow Queen.**—This has pretty bluish-lilac flowers, but the name suggests those of pure whiteness.

**Ononis rotundifolia.**—This is an attractive shrubby "Rest Harrow," with flowers of the brightest rose.

**Pavias.**—The following Pavias were sent: *P. Briotii* (the brightest in colour of all), *P. flava*, the rather dingy-hued *P. f. purpurascens*, and the richly-tinted *P. rubra*.

### RHODODENDRON KEYSII FROM IRELAND.

Flowers of this interesting Rhododendron come from Messrs. Pennick and Co., Delgany Nurseries, County Wicklow. Its clusters of reddish yellow tubular flowers make a bright show through their profusion, every shoot almost bearing its mass of bloom. The flowers were gathered from a plant 6 feet high, which we believe it has not exceeded in the British Isles. *R. Keysii* was introduced from Bhotan in 1851.

### DRIMYS WINTERI.

Messrs. Pennick also send flowers of this pretty South American shrub, which were gathered from a specimen 20 feet in height. The flowers are creamy white and daintily shaped, the red stem and pale green leaves intensifying the profusion and beauty of the creamy clusters.

### LABURNUM (CYTISUS) ADAMI.

This is one of the curiosities of the tree world. It is not very uncommon, but the 27-foot specimen in Messrs. Pennick's nurseries must be a picture of quaint colouring. It is what is known as a "graft hybrid," which is said to have been effected by a M. Adam by grafting *Cytisus purpureus* on the common Laburnum (*L. vulgare*). On the same branch the two parents may be seen, and this mixture of purplish and clear yellow racemes is very curious. Some of the racemes on the tree mentioned are 2 feet in length. The flowers almost obscure the foliage.

### FRUIT OF THE MONSTERA DELICIOSA.

We are reminded of the delicious qualities of this tropical fruit by a specimen kindly sent by Mr. Richard Gunter, Old House, near East Grinstead. It was cut from a plant which covers 160 feet surface in a vinery in Mr. Gunter's garden, who has had it over thirty years. Our correspondent writes: "It is always in flower and fruit, and we walk under its air-roots, which hang like ropes." The following reference to this interesting fruit appears in "The Fruit Garden": "An aroid with edible fruits is exceptional, the order being remarkable for the acrid or poisonous nature of its juices. The *Monstera* is very similar to a big Philodendron, or it might be termed a glorified Ivy, the behaviour of the plant generally being similar. Multiply all the parts of the Irish Ivy by about fifty, and then you have *Monstera deliciosa*. There is, however, the striking peculiarity in the *Monstera* of perforated or windowed leaves, and the flowers and fruits are, of course, very different. The former, or rather the inflorescence, is not unlike that of an Anthurium, but the spadix is straight,



thick, and club-like, while the spathe is only partially opened and is boat-shaped. The spadix grows to a large size, 1 foot or more in length, and 2 inches or 3 inches thick. It takes about a year to mature, becomes yellow when ripe, and is then not unlike a huge Corn-cob; but is soft and pulpy, deliciously aromatic, and most palatable, except that it causes a pricking sensation to some palates. On the whole, I think it is better to look at and to smell than to eat. The plant requires plenty of room for its development, a pillar or back wall in a large tropical house suiting it, or the stem of a Palm tree in such a structure as the Palm house at Kew. It would grow equally well on the ground, but it would occupy much space. I have seen it growing in summer by the side of a little pool in a sunny position out of doors in the garden of Mr. Chamberlain at Highbury, but the plant is essentially tropical."

#### THE NEW PEACH PEREGRINE.

We are glad to renew acquaintance with this delicious Peach, fruits of which have been sent to us by the raisers, Messrs. Rivers and Son, The Nurseries, Sawbridgeworth. The fruit is large, shapely, beautifully coloured, with a dark crimson shade, and one of the most distinct and valuable of all for flavour. Of the many fruits raised by Messrs. Rivers Peregrine Peach must be accounted one of the best in all ways. It is strong in growth, and exceptionally free-bearing, as the trees exhibited recently by the firm testify.

#### A NEW ANCHUSA.

A very beautiful variety of *Anchusa italica* comes from Miss Farrant, but it is the same as *A. italica* var. *superba*, which is also known as the Dropmore and Swanmore Park varieties. *A. italica* is very variable, and the forms sent by our correspondent for comparison are very poor.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**A**NEMONES.—*A. coronaria*, *A. fulgens*, and the St. Brigid varieties have finished flowering. The seeds of these are so freely produced that only the brightest and best flowers are chosen for seeds. These may be sown now. The seeds being of a peculiar woolly nature, it is difficult to sow them without first thoroughly separating the seeds. Spread a paper on the table or potting-bench, and spread over it about a 6-inch potful of sand, or fine earth will do; then sprinkle the seeds over this, and mix and rub them together until the separation of the seeds is complete. Choose a sunny border in the open garden for a seed-bed, dig deeply, tread the soil down, and rake the surface fine; then give a good watering. Wait until it is dry enough to make drills, which should be very shallow, as the seeds need only the barest covering of very fine earth. I always consider it best to sow the seeds in drills, as, should weeds be troublesome, they are more easily dealt with, but if space is an object they may be sown very thickly broadcast. In that case it is only necessary to scratch the surface with a fine rake and just cover the seeds with a sprinkling of sifted soil. Whichever plan is adopted, beat the surface flat with a spade after the seed is sown, and give a sprinkling of water. I have advised sowing the seed on a sunny spot, but it is necessary to shade the seed-bed from sunshine till the seeds are up. Newspapers laid on the beds will answer this purpose, with a few pieces of Pea-sticks laid on them to prevent the wind blowing them away; but, better still, stretch a piece of tiffany over the bed and keep the surface moist. The young

plants will begin to appear in three weeks. The covering should then be removed. It is very important never to allow the beds to become dry, or the seedlings are liable, after forming small bulbs about the size of Peas, to lose their leaves, and consequently stop growing and lie dormant for months. If, however, they are kept well supplied with water during the summer, they will continue to grow, and may either be transplanted in September or left to flower in the seed-bed, which in either case they will do in the following spring. I would strongly recommend the raising of a few seedlings of *Anemones* every year.

**BULBS THAT HAVE FINISHED FLOWERING**, such as early Tulips, *Anemones*, and *Ranunculus*, are now going to rest. These should be taken up, choosing a dry day for this work, and as they are taken up place them thinly in boxes, trays, or upon mats to dry in a shady place that the process of drying may be gradual. When the bulbs are perfectly dry they should be cleaned. The Tulips should have all the small roots or offsets separated from the large ones, and each sort carefully labelled and placed in some dry, airy house or shed until the season of replanting arrives.

**WALLFLOWERS**.—Those sown in April or early in May will now be ready for pricking out. In transplanting from the seed-beds pinch off the tap-roots, as this induces the plants to make numerous fibrous roots near the surface, and, given plenty of room, nice dwarf, bushy plants are produced. Always bear in mind that one good bushy plant is better for bedding purposes than three drawn, lanky ones.

G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**EPIDENDRUM O'BRIENIANUM**.—This is a very handsome hybrid, its parents being *E. erectum* × *E. radicans*. It is easy to grow and very free flowering. Renew the material every year, and attend to this without delay. For several years I have grown a dozen plants in a house with *Cypripedium insignis*, where they do remarkably well, increasing each year in size of growth and flower-spikes. At the time of writing there are about fifty heads of bloom on these plants, which would last for three or four weeks longer if they were allowed to remain on the plants, but by cutting them off now and repotting the plants we get another display during late autumn and winter. In beginning the operation of repotting tie the growths together, then take the plants out of the pots and remove all decayed portions of the stem and roots, also the old material. The pots should be drained to about one-third their depth, over which a layer of moss should be placed. The plants should be so placed in the pot that the young growths are as near the surface compost as possible.

**COMPOST**.—This should consist of rather lumpy peat and sphagnum moss and one-fourth Oak leaves. Pot moderately firm, and place some large pieces of crock between the compost during the process. During the summer months syringe the plants freely and keep the compost in a moist condition. Whenever it is possible the aerial roots should be trained so that they may enter the compost.

**PROPAGATION**.—If stock is required allow a large proportion of the flower-stem to remain on the plant. The young growths will soon appear at every node, and as soon as they root three or four pieces should be potted together in small pots and treated much in the same way as the old plants. *E. erectum*, *E. xanthinum*, *E. Wallisii*, the hybrid *E. Boundii*, and all the taller-growing section may be treated in the same way, and are all very easy to grow.

**CYPRIPEDIUM BELLATULUM** and its variety *album* are not easy plants to cultivate unless their requirements are understood. The best time to repot them is soon after they have

flowered, but as long as the plants are well rooted and the compost is in good condition they should not be disturbed. Plants that require it may be repotted now, and the compost should consist of two parts fibrous loam in lampabout the size of Walnuts and one part peat, mixed freely with some old mortar rubble. The chief point is to see that the plants get a thorough drainage. I use quite half-drainage material between the compost, the plants root very freely, and consequently make good growth. A good position for them is near the roof-glass in the intermediate house, but care must be taken to keep them free from drip, as these fleshy-leaved *Cypripediums* often rot when water settles in the growths. Water should be applied carefully until the plants are rooting freely, when they should be given sufficient to moisten the compost through whenever it approaches dryness. *C. concolor*, *C. niveum*, and *C. Godefroyi* require more heat and moisture, otherwise they should be treated in the same way as *C. bellatulum*. W. H. PAGE.

Chardwar Gardens, Bourton-on-the-Water, Glos.

### FRUIT GARDEN.

**VINES THAT HAVE FRUITED**.—When all the fruit has been removed the Vines should be well syringed and the roots receive a good supply of water. Allow a moderate extension of the laterals, and admit air freely, but do not encourage any premature ripening of the wood. If the house has suffered from the attacks of red spider, or if mealy bug is present, now is the time to take vigorous measures to eradicate either. For the former a free use of the syringe with an application of Spidacide, or a sulphur and soap mixture, should be given for the latter. Fumigation with one or other of the nicotine compounds frequently repeated will eradicate this troublesome pest. Ripe and ripening Grapes should be carefully ventilated, keeping a little air on continuously and increasing it as the heat of the sun increases. The thinning of late Grapes should be proceeded with as soon as the berries are set, and tying in the laterals so as to cover the entire space without crowding the foliage; afterwards keep them closely pinched. Assuming that the borders are well filled with roots and that the drainage is in perfect order, Vines that have their roots confined to inside borders cannot well be over-watered, and frequent applications of liquid farmyard manure should be given during the growing season.

**FIGS UNDER GLASS**.—Trees ripening their fruit should be kept rather dry, and plenty of air be admitted to the house. Figs are frequently rendered unfruitful by overcrowding the foliage, thus shutting out light and air. Rigorously thin out, therefore, all shoots that are not required, and stop the gross ones. Thin the fruits on late trees, leaving each fruit about 6 inches apart. As soon as the early crops of Figs are gathered let the succeeding one be given liberal applications of manure water at the roots, and syringe the leaves thoroughly to wash them. The mulching of the roots may also be advisable in shallow soils.

**MELONS**.—To obtain a good supply during the autumn two or three succession houses should be planted between now and the end of July. In making the beds a greater depth of soil may be given with advantage at this season. In all cases give the house a thorough cleaning, and lime-wash the walls and trellises before planting. Crops now in the flowering stage will require the same attention in setting the fruit as earlier in the season. In the case of plants having rapidly swelling fruits watering should not be neglected, but the soil be kept regularly moist. Heavy applications of water after the plants have been allowed to become dry tend to cause splitting of the fruits. Stop all laterals when they have made two or three leaves, and if the old foliage shows any tendency to suffer under bright sunshine, it will be better to afford shade until the fruits are ripe.

**EARLY PEACH HOUSE.**—As soon as the fruits are cleared much of the wood which has borne fruit may be removed. This will allow sun and air to reach next year's bearing wood. Admit plenty of air at all times and endeavour to preserve the foliage in health as long as possible. Avoid any treatment that will prematurely ripen the leaves. Should red spider or any other insect pest infest the trees they should be well washed with some reliable insecticide applied with considerable force from a powerful syringe or garden engine, and the trees should be syringed frequently to keep the foliage clean. The borders should also be kept in a moist condition, as neglect of water at the roots at this stage is frequently the cause of bud-dropping in the spring. Mid-season and later houses will require to be liberally supplied with water at this season both at the roots and on the foliage. A suitable stimulant for Peaches swelling their fruits is sulphate of ammonia and sulphate of potash in equal quantities. Plenty of air should be admitted by day to ripening fruits, and a certain amount of circulation during the night from both top and bottom ventilators. The fruits should be given all the light possible by tying aside shoots or leaves that obstruct it. In the late houses the disbudding and thinning of fruits will now be completed, and where the young shoots show any signs of crowding a few more should be removed to afford more space for those that remain. During bright weather the trees should be syringed twice a day, and if mildew or aphid appear they should be promptly treated. The former gives way readily to an application of Mildew Specific, green or black fly can be eradicated by one or two fumigations, followed by a thorough syringing with liquid quassia.

THOMAS R. WILSON.

Glamis Castle Gardens, Glamis, N.E.

### KITCHEN GARDEN.

**ASPARAGUS.**—In many gardens, now that the early crops of Peas are in, the cutting of Asparagus should be less, and soon entirely cease, and then the attention of the cultivator should be devoted to the production of good top growth to help bud formation for another season's crop. One of the most important points to be considered in good Asparagus cultivation is freedom from weeds in the beds, for if weeds are allowed to make headway the cultivator will pay a heavy toll for neglect. After weeding rake the beds, or if much trodden lightly loosen with a fork, then give a dressing of some approved manure—containing potash and nitrogen—of which there are several in the market. A good dressing of salt—say, 2lb. to the square yard—or a quarter the quantity of nitrate of soda will also be a great help to the finishing up of the buds. If the weather should continue hot and dry frequent waterings will be necessary; and if possible give occasional waterings with manure water. Another point of great importance is the necessity of affording support to the growths in places exposed to the wind. When Asparagus tops are much shaken by the wind, and the growths sometimes get broken off, the roots suffer. Especially is support necessary in the case of freshly-planted crowns, which need all the help possible from top growth the first two summers, and precautions must be adopted in good time. Pea stakes thrust in firmly all over the bed will give plentiful support, or stakes driven in at regular spaces and connected with stout twine will answer very well.

**CULINARY.**—The early batch should be ready for planting out. Choose a dull or showery day if possible for the operation. Well water the plants before lifting, then proceed carefully with a hand-fork. Avoid damaging the roots as much as possible, break out any side growths that may have formed in the axils of the outer leaves, and plant firmly in the bottoms of the trenches. If planted in single rows 9 inches or 10 inches from plant to plant will be far enough, but if double

rows are decided on, plant diagonally with 12 inches at least between the plants and 8 inches between the rows. I much prefer the double row, the plants being very easily earthed up, and there is a saving of room. Give a thorough watering when the planting is finished, and a sprinkling overhead each day until it is seen that growth has recommenced.

**POTATOES.**—The earthing up of late varieties should be completed as soon as possible, care being taken not to bury any weeds. In beds of Potatoes grown for seed, a careful look-out should be kept for "rogues," which are more easily discerned when the haulm is in full growth than afterwards. Dig them out and get rid of them at once. If the bed is for eating and seed combined, mark the "rogues" with a stick so that no mistake is made at the time of digging.

J. JACQUES

Bryanston Gardens, Blandford.

## BOOKS.

**The Art of Garden Design in Italy.\***—We have so long been accustomed to the never-ceasing flow of gardening books in the various branches, many of them by authors of no repute, and many of them possessing neither literary nor practical interest, that it is a real pleasure to welcome the appearance of this grand folio volume by Mr. Triggs. In size "The Art of Garden Design in Italy" is 17 inches by 13 inches, which affords ample scope for the execution of the numerous full-page illustrations of famous Italian gardens that adorn the work. Of these there are 128, of which 73 are in collotype from photographs specially taken by Mrs. Aubrey Le Blond. But mere verbal description will scarcely convey to the reader a fair idea of the style and artistic get-up generally of Mr. Triggs' new and interesting work. We may incidentally observe that by special permission it is dedicated to Queen Margherita. On turning over the pages one can see that the scope covered by the author is most comprehensive, but we can only briefly notice the general features of the book in a short review like the present. After the preface there are useful lists of the contents, the collotype full-page plates, the plans of gardens, the half-tone plates, and the illustrations in the text, which form no inconsiderable portion of the work. Many of these are sketches and measured drawings of garden detail in fountains, ponds, terraces, balustrades, staircases, steps, vases, and innumerable other garden accessories for which Italian gardens are so renowned. We then come to the chapter entitled "Historical Introduction," which is a very comprehensive essay, dealing with garden planning from the days of the Roman Republic through the ages down to more modern times. Then following this are the various accounts of the villas and gardens, each treated separately, that have been chosen by the author for treatment in so capable and lavish a style. In the north Isola Bella, the Villa d'Este, the Villa Carlotta, and others in and around Lakes Maggiore and Como are dealt with. Then follow famous places near Milan, Genoa, Verona, Siena, and Florence. The Eternal City is liberally treated, for there are, among others that form the subject of illustrations and special chapters, such famous places as the Royal Palace of the Quirinal, the Vatican Garden, the Villa Borghese, the Borghese Palace, the Villa Pamfili, and the Villas Chigi, Corsini, Medici, Albani, Colonna, &c. At Frascati there are seven or eight, then we come further south and find that Naples, the Pompeian, and the Sicilian gardens all claim an equal share of the author's attention.

A work of this magnitude is of necessity a somewhat expensive one, but we remember the interest that is yearly developing in garden

\*"The Art of Garden Design in Italy." By H. Inigo Triggs. (Longmans, Green and Co., London.)

literature, and that some of the public libraries and horticultural societies are actively engaged in putting together collections of gardening books for the use and instruction of their members. This is such a book as should be placed on the shelves of libraries of the kind mentioned, for it deals with many of the finest Italian gardens in a most comprehensive manner. The plates are all of the same high order of excellence.

"The Art of Garden Design in Italy" is of course particularly addressed to those who have some professional interest in horticulture, but the ordinary tourist who has visited any of the places depicted will find delight in turning over its pages, for who is there that has ever been beneath the sunny skies of Italy who has not preserved pleasant memories of his journey, and who would not like to look upon the places again? So far as the gardens are concerned, Mr. Triggs has afforded us a permanent opportunity in his magnificent volume now under notice. Quite recently we read in an American contemporary a few remarks by a well-known gardener, who said, "Why should we spend time and money in endeavouring to reproduce, at the best, weak imitations of so-called Italian gardens? . . . These ancient and over-praised gardens belong to a past age and generation, where art supplanted Nature, because the rich storehouse of Nature was unknown to the men of those times." It is curious that in the publishers' announcement they say, "Most fortunately, these old Italian gardens, though frequently shamefully neglected, still retain much of their original character, combinations of art and Nature with the subtle charm that lies in the fusion of well-designed architecture and masses of natural foliage, of contrast between the gay parterre bathed in sunlight, and the grassy paths and cool mysterious Ilex woods." We can conceive of no greater horror in horticulture than a newly-made so-called Italian garden in a London suburb, or even a New York suburb, if there are any, but apart from some of the features which disfigure some Italian gardens, and Isola Bella may be quoted as an instance, an Italian garden is chiefly the product of climate, Nature, art, and age.

C. H. P.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

### FLOWER GARDEN.

**LEAVING CUT GRASS ON LAWN (L. M. M.).**—No harm is done to a lawn by leaving the short cut grass lying on it instead of collecting it into a box as usual. Still, it is very doubtful whether any benefit to the lawn can result from such practice, and whether such benefit is not more than counterbalanced by the lack of neatness or tidiness which results, for one of the great charms of a well-mown lawn is neatness. It is worthy of note that practically everywhere where there are lawns, large or small, cricket grounds, golf courses, or elsewhere, the cut grass is always collected. That grass does need some feeding or manuring as other crops do is of course certain, but the method you suggest is not the best in any sense.

Far better give a lawn a dressing of soot, basic slag, or native guano in the winter, and a dressing of 2lb. per rod of sulphate of ammonia in April.

**CALCEOLARIAS DYING OFF** (*W. J. Payne*).—Calceolarias are particularly liable to die off in the manner described by you; indeed, in some districts it has been so bad that the use of these showy flowering plants for bedding has been to a great extent discontinued. Various theories have been put forward to account for their behaviour. Some facts in connexion therewith are, however, fully established, and one is that plants grown in small pots are, when planted out, far more prone to go off in this way than those which have not been grown in pots. Early planting, too, is very helpful, and this can be done without risk, as Calceolarias are harder than the general run of bedding plants. A cool, fairly moist soil is favourable to them, and the dry weather and cold winds experienced this spring have been very bad indeed for bedding Calceolarias. The most successful cultivators of bedding Calceolarias strike them in a cold frame, and trust to covering in the winter to protect from frost, then towards the end of February they are replanted into frames, giving them more room than before. They are then early in May lifted and planted in their permanent quarters, taking care that the ground is deeply dug for their reception. Then, should the weather prove normal, the roots will soon take hold of the new soil, and the plants grow away without check.

**GREEN OLEMATIS** (*A. W. H.*).—The abnormal colour is probably due to some local influence, for green flowers are frequently met with in the case of Primroses, Ranunculus, and other plants. It will probably resume its usual colour when it flowers next year, even if it does not do so this season with the later flowers.

**SWEEP WILLIAM** (*Nil Desperandum*).—The plant was much shrivelled when received, and it is hardly possible to give a definite opinion as to the cause of the failure. We could not find any traces of eelworm, and the general debilitated state of the growth would rather point to an exhausted stock, worn out and sick of its environment. While some few varieties of the above are increased by cuttings and the like, the true types are never so vigorous as when treated in the more natural way and raised from seeds. Any special variety should be raised from cuttings, preferably from unflowered plants, employing the young axillary shoots that can be detached or pulled away with a heel. These when rooted should be wintered in a frame and planted out in March. If the plant has long been grown in the same soil, you had better make a special bed of soil, either from the kitchen garden or from good pasture loam. These plants prefer chalk or lime to a considerable extent. If you have reason to suspect eelworm and cannot use gas-lime, you should try what is known as Horticultural Extirminator mixed with the soil.

### TREES AND SHRUBS.

**LAYING DOWN A FIELD** (*A. H. Ryden*).—You cannot do better than treat the field as you suggest, though we should advise you to clean it as much as possible during dry weather this summer. In addition to Gorse and Broom, you could plant Myrobella Plum, common Privet, and Rhododendron ponticum, all of which are cheap, and form excellent cover for game. Your idea of planting Silver Birch is excellent, but the Fir to use is either Scotch, Corsican, or Austrian Pine, any of which would answer your purpose. Abies nordmanniana would be of no use to you as a cover plant. As your field will be fresh ground to the subjects you put on it, there will be no necessity to use any chemical, though a dressing of soot would be beneficial. The double Gorse can only be increased by cuttings, so that you would have to procure young plants, which are always grown in pots, as it is difficult to transplant from the open ground. Bracken seed is sometimes obtainable, and, as it is very fine, it should be well mixed with sand before sowing.

**CUTTING BACK YEW** (*E. F. B.*).—Yews may be cut back now if done with care, but it would not be advisable to cut too hard. If not done now it should be left till next May.

**PRUNING FLOWERING CURRANT** (*A. S. D.*).—The best time to prune Ribes aureum is as soon as the flowers are over; it is not, however, too late to do the work now. You can cut the branches back fairly hard, as it grows away from dormant eyes readily. All large wounds should be coated with tar, and if the weather is dry an occasional

syringing will do good. A thorough watering at the roots, with an after top-dressing of well-decayed manure, will be beneficial.

**JASMINUM PRIMULINUM** (*H. D. Palmer*).—Two forms of *Jasminum primulinum* have been introduced, one with typical single flowers, the other with semi-double blooms such as you send. The form with semi-double or hose-in-hose like flowers is the most common, the single-flowered one, in fact, being rarely met with.

**YEW DYING OFF** (*B. C. York*).—We certainly cannot understand your Yews behaving in the manner indicated, the uniform way in which a patch of each has died being very strange. If the branches indicated are quite dead we should advise you to cut them out, when it might be possible with a piece of string to draw a neighbouring branch or two into the unsightly gap so that in time the defect might be remedied. The best time to clip Golden Yews is in the spring. If Golden Yews are clipped regularly they may easily be kept uniform with each other, but if they have been allowed to grow each in its own particular fashion some will, in all probability, need to be cut back hard in order to ensure uniformity, in which case they will take a season or two to recover.

**CHOISYA TERNA** (*Mabel Gordon Dill*).—Only two things would bring about the ruin of the blossoms—frost or impoverished condition of the soil at the roots. As the foliage shows no signs of injury from frost, we think lack of nourishment is the cause of the failure. Your remedy is to dig a trench beyond the boundary of the verandah and charge it with good soil to a depth of 2 feet. You should thoroughly moisten the roots, or even give liquid manure, and a few perforated bricks in lieu of those now laid would assist to this end. The plant is not at all clean, and the spray sent was crowded with brown scale, apart from the obvious evidences of what you term "blight." The bush might with advantage be thinned or pruned and the worst shoots removed and burned.

### ROSE GARDEN.

**ROSES ATTACKED BY GRUBS** (*E. F. B.*).—The life histories of some of the many moths which attack the foliage of Roses are not fully known, so it is not easy to deal with them. Even if the eggs were laid in the autumn and remained on the old wood all the winter, it is very questionable if they could be destroyed by spraying. A caustic alkali wash might kill them; paraffin emulsion would not. Most probably the eggs are laid in the spring, when no insecticide could be applied which would kill them. Spraying with an arsenical wash would kill the caterpillars by poisoning their food; but if the caterpillar has already made its way into a bud or ensconced itself under the fold of a leaf it will not be harmed, and I should think that the time spent in spraying would be more effectively spent in hand-picking.—G. S. S.

**ROSE RUST** (*H. Mattocks*).—The portions of Rose plant sent were badly attacked with Rose rust (*Uredo Rosae*). It is a common fungus among Roses, and, when once established, rather difficult to eradicate. Even the Dog Roses in some districts become infested with the fungus. The best known preventive is to thoroughly drench the plants that have been attacked the previous year with a solution of copper sulphate in water, but it must be applied in early spring. The soil around may also be saturated. At present we should advise you to remove the growths that are very badly attacked. We have never found it to be very harmful to the blossoms, only its appearance is not at all what one would desire. The copper sulphate when made up is known as Bordeaux Mixture, and may be had from horticultural sundriesmen.

**THIRTY-SIX GOOD TEA ROSES** (*C. G. Trevanion*). We can recommend the following as being really good sorts and good growers. They will succeed either as bushes or half-standards, but we should advise the latter. Usually one expects the blossoms of Tea Roses to be of a higher quality from half-standards than from bushes, and certainly they are better protected against injury by rain, although more exposed to the wintry weather. Anna Olivier, Boadicea, Bridesmaid, Comtesse E. de Guigne, Comtesse de Nadaillac, Dr. Grill, Elise Fugier, Francis Dubriell, Francisca Kruger, General Gallieni, Golden Gate, G. Nabonnand, Hon. E. Gifford, Lady Roberts, Mme. Antoine Mari, Mme. Durand, Mme. Berkeley, Mme. de Watteville, Mme. Jean Dupuy, Mme. Hoste, Mme. Lambard, Mme. Vermorel, Maman Cochet, Marie van Houtte, Medea, Morning Glow, Mrs. E. Mawley,

Peace, Rubens, Souv. de S. A. Prince, Souv. de G. Drevet, Souv. de P. Notting, Souv. de Wm. Robinson, Souv. d'un Ami, The Bride, and White Maman Cochet. A dozen good climbing Roses for training up some disfigured trees would be Lady Gay, Aglaia, Crimson Rambler, Electra, Helene, Hiawatha, Félicité Perpétue, Flora, Carmine Pillar, Mme. Alfred Carrière, Mme. d'Arblay, and Jersey Beauty.

**ROSES WITH GREEN CENTRES** (*A. J. Goldie*).—When this occurs upon climbing Roses we usually attribute it to cold winds and frost, and the fact that the later flowers are not so malformed lends emphasis to this conjecture. If you could protect your plants with evergreen boughs, mats, or fish netting while the frosts and cold winds prevail, and also endeavour to secure a thorough ripening of the growths the previous autumn, we think you would solve the difficulty of these early green-centred Roses. In October pinch out the extreme ends of the shoots. This will aid in ripening the growths very considerably.

**LIQUID MANURE FOR ROSES** (*H. A. S.*).—If you can procure some cow manure you can make a good liquid manure. An old paraffin cask, placed in an out-of-the-way corner makes a good receptacle. Put about a bushel of manure in the cask and fill up with water. Add a peck of soot placed in a porous bag. After standing two days use the liquid about half strength. Failing the cow manure, obtain a good artificial Rose manure, and make the liquid as given in the directions that are sent out with the manure. It is also a good plan to apply a sprinkling of artificial manure when it is raining, then the first fine day after hoe the ground.

**REMOVING ROSES NEXT AUTUMN** (*"Suburbanist"*).—Naturally you desire to obtain all you can from the soil in which your Roses are now growing, seeing that you are removing next autumn. You say the soil has been well enriched with manure, and you now propose to apply nitrate instead of liquid manure. We agree with you that this would be a good plan, only you must be careful not to overdo it. Apply at once at the rate of 1 cwt. to the acre. Had it been the winter months we should have recommended a good dressing of lime, but it is now rather late for it to be of use this season. By all means keep the cultivator going freely, either with the hoe or fork, in order that the air and sun warmth may aid you by penetrating the soil.

### FRUIT GARDEN.

**RASPBERRY MITES** (*J. M. M.*).—The buds of your Raspberries are not attacked by a mite, but by the caterpillars of the Raspberry moth (*Lampronia rubiella*). The best way to destroy this insect is to cut off the shoots bearing infested buds about 1 inch below the lowest affected bud, and burn them. In cases where there may be only one infested bud on the shoot, you might pick off the bud, taking care that the enemy is not left in the shoot. The life-history of this insect is curious; the moth lays her eggs in the flowers and the caterpillars make their way into the core of the fruit, remaining there until the fruit is ripe. They then leave their quarters and descend to the stool of the plant, where they pass the winter. In the spring they crawl up the stems and attack the buds. In the course of the winter all dead leaves, rubbish, &c., should be removed from the stools and promptly burnt.

**PEAR MIDGE** (*J. C., Coventry*).—Your Pears are attacked by the grubs of the Pear midge (*Diplosis pyrivora*), a very destructive pest, and one that appears to be becoming commoner every season. If your trees are small ones, hand picking is the best remedy, and if a large majority of the fruits are infested I should gather the whole crop and burn it, so as to make certain that no affected fruit remained on the trees. If the trees are too large to treat in this manner, at once give the ground beneath the trees a dressing of kainit at the rate of 4½ cwt. per square yard. This should be spread very evenly over the soil, with the view of killing any of the grubs which may fall on it. Rolling or beating the ground smooth with the back of a spade first would be useful. The grubs either fall from the Pears or wait until the latter fall, when they crawl out and bury themselves in the soil to the depth of about 1½ inches and become chrysalids, so that removing the surface-soil to the depth of about 2 inches in the course of the winter and burning or burying it deeply (say 1 foot) would effectually destroy the pest. Burying the chrysalids by trenching the ground in the winter and rolling it in the spring is also recommended.—G. S. S.

**FRUITS IN POTS (L. Taylor).**—Probably the most suitable fruits for you to grow in pots in your vineyard would be Strawberries; they are far easier to grow than Peaches and Nectarines. If you potted up good runners about August, and kept them out of doors until October, then brought them into the vineyard, keeping them in a light position not far from the glass, they would come into flower in the spring—at what time would, of course, depend on the temperature of the vineyard. Strawberries are best grown in pots of 8 inches diameter, so that you would be able to grow a considerable number in your vineyard.

**MILDEW ON VINES (L. F.).**—The remedy you have applied is the safest to use while the foliage is so young and tender, and is generally successful. If by and by, when the fruit has set, you find that the mildew is still alive, heat the hot-water pipes to that degree that you can scarcely bear your hand on, and then paint over with flowers of sulphur made into the consistency of paint, closing the house before the application, and not opening again the next morning until the temperature has risen to 70° Fahr. If the first application does not kill, repeat two nights after, and make sure the evening is calm, or the wind will disperse the sulphur fumes before they have had time to kill the mildew.

**STRAWBERRIES UNDER WIRE NETTING (Cormwall).**—With the unfortunate experience you have had, and the knowledge of failure with others under similar conditions, we would advise you not to venture your whole plantation of Strawberries under the wire netting, but to plant the bulk of them in the open, and a few rows also under the netting in order to satisfy yourself by this special experience whether the netting is in any way accountable for the failure. We are inclined to think that the cause is due to some other adverse conditions, as in our long experience of the culture of the Strawberry under similar conditions we cannot call to mind a single case of failure which could be justly attributed to this cause.

**MUSCAT OF ALEXANDRIA GRAPES NOT SETTING (J. F. B.).** While it is possible that ground glass in the roof of your vineyard does materially affect the setting of the Grape flowers, it is probable that at the time of flowering the temperature of the house, especially at night, was too low. This Grape needs fire-heat, really a temperature of 60° at night, and rather higher in the day, with a fairly dry atmosphere, to induce good setting. Generally it does best in a house by itself, where, with sufficient fire-heat, it gets ample ventilation. An occasional tapping of the rods, say twice a day, helps also to liberate the pollen on the flowers. This Grape also needs plenty of sunshine, and that can hardly be properly furnished with clouded glass.

**STRAWBERRY LEAF-BUTTON MOTH (Norwich).**—The grubs you find in your Strawberry leaves and flowers are the caterpillars of a small moth, the Strawberry leaf-button moth (*Peronea comarum*). You cannot do better than pick off the leaves, &c., as you are doing; spraying the plants would do little, if any, good. It seems to be uncertain whether the caterpillars bury themselves in the soil and become chrysalides or whether they hide at the base of the leaves for that purpose. If they bury themselves, then taking away about 2 inches of the soil during the winter and burying it deeply would destroy them. If they are among the leaves, cutting the leaves off as low down as possible in the autumn and clearing away any rubbish that may be about the plants and burning it would be useful.—G. S. S.

**PEACH FRUITS DAMAGED (J. H.).**—The appearance of the fruit sent leaves no doubt in our mind that the injury has been caused by mildew, that form of it which occasionally attacks the fruit of the Peach and not its foliage. The best remedy is the following: Boil 1 lb. of flowers of sulphur and 1 lb. of quick lime in five pints of water for ten minutes. Stir constantly while boiling, allowing it to settle afterwards for twelve hours; then pour the clear liquid off the sediment (throwing the latter away). Add a quarter of a pint of this mixture to two gallons of water, and syringe the affected tree for two or three days in succession, and you will be rid of the mildew, but with a bad attack like yours the fruit cannot be saved. We have noticed that the trees which invite an attack from this mildew are generally in feeble health consequent on defective root action. If this should be the case with your tree, you should either lift and replant in new loam this autumn, or, if too old to lift, add fresh soil and lime to its roots. A sudden lowering of the temperature by currents of cold air being admitted is often responsible for its attack.

## KITCHEN GARDEN.

**EXHIBITION ONIONS AND HOW TO GROW THEM (F. C. Y.).**—The first step it is necessary to take in order to grow Onions successfully for exhibition is to have the land deeply trenched and heavily manured with rich stable or cowshed manure in the previous autumn. Unless this has been done the best results cannot be looked for, as no attention to improve culture or to a more liberal application of artificial manures during the summer can compensate for the want of this preparation. Moreover, you are a month late in planting. This cannot now be helped, but you should bear in mind another year to plant them not later than April 20. The seed should be sown early in January, and the seedlings pricked out into small pots and placed on the shelf of a greenhouse close to the glass, or a glass frame

would do where the plants could be protected from frost. Having said this, there is yet time to grow some good specimens by the time they are wanted. We will take it that the land has been prepared and is ready to receive the plants. The first thing to do is to tread the soil firmly all over in dry weather until the surface is made tolerably hard. The next thing to do is to give the land an application of nitrate of soda, sowing it sparingly broadcast over the ground. This is intended as an antidote against the attack of the Onion maggot, which is usually so destructive at this time, and will also act as a stimulant to the growth of the bulb. When the sowing of the nitrate of soda is finished, rake the land over; then lay down a line and draw shallow drills 1 foot apart, and plant the Onions in the drills 10 inches apart. If the plants have been grown in pots or boxes and have a fair quantity of roots, they had better be planted with a trowel, and not dibbled in the usual way. Be careful not to bury the bulb deeper than is necessary to secure its upright position in the soil. Water the plants as soon as planted, and run the Dutch hoe over so as to obliterate footmarks. Should the weather after planting turn out hot and dry, the plants must be watered at least twice a week until the roots have taken hold of the soil and growth is active. The cultivation during the summer afterwards will consist in keeping the ground free from weeds by hoeing, and to encourage and sustain free growth by frequent waterings with weak guano water. Early in July mulch the ground round the plants with a dressing half-an-inch thick of fresh horse manure. This will greatly help the growth of the Onion by keeping the surface moist and by stimulating surface root-action. This should be left on until the bulbs are full grown.

**TOMATO DECAYING (W. J. Fuller).**—Your treatment of the Tomato plant is quite correct. The decay is not due to disease, but to what is called scorching. You have, you say, cut back the foliage to expose the fruits, and probably you have done this after a period of cloudy or sunless weather, then with hot sunshine the fruits have suffered. Your plants may also be near the glass, and the latter may be poor or thin, then scalding soon takes place. Use a little shade for a short time during the hottest part of the day and your plants will soon recover. Allow a little more growth for the next few weeks. Severe cutting back of the foliage is not at all conducive to ripening of the fruits.

## THE GREENHOUSE.

**CULTIVATION OF NERINES (E. R. B.).**—Nerines are now going to rest. When in this state they are best placed in a frame fully exposed to the sun, plenty of air being given at all times, and water absolutely withheld. This thorough ripening of the bulbs is very necessary to the production of blossoms. In August those plants which need it should be repotted, though once well established Nerines will stand for years without repotting. For this purpose three parts good yellow loam, one part leaf-mould, and one part sand forms a very suitable compost. In repotting all old soil must be shaken entirely away from the roots. Leave in the frame until the tips of the flower-spikes appear. They may then be taken out, thoroughly watered, and placed on a light, airy shelf in the greenhouse, where the flowers will develop. After flowering they must have a good light position in the greenhouse assigned them, as they grow throughout the winter. *Amabilis*, *Bowdeni*, *curvifolia*, *cornucopia*, *flexuosa*, *flexuosa alba* (white), *humilis*, *Plantii*, *sarniensis* (Guernsey Lily), and *venusta* are the best.

## MISCELLANEOUS.

**A PLAGUE OF SLUGS (W.).**—The slugs you sent were of three different kinds. There was a single specimen of *Limax marginatus*. This was the largest one; it had a paler keel down the back. Then there were two specimens of *Limax agrestis*, which were much paler than the others; this is usually the commonest slug in gardens and fields. The small, narrow, dark ones were specimens of *Arion hortensis*. Hand-picking after rain in the evening, or later when it has become dark with the aid of a lantern, is one of the best ways of destroying them; or take a sharp-pointed knife and cut them in two just behind the

head, across what is technically called the shield (it is the part under which are the vitals of the creature), kills them immediately. Cutting off their tails only maims them. They may be caught by laying small heaps of bran about, which the slugs are fond of; or by placing boards, slates, bricks, &c., on the ground near their haunts, for they are fond of hiding under such things during the day. You will also find woodlice, snake millipedes, and leather jackets keeping them company. One part of liquid ammonia mixed with six parts of water will kill them.—G. S. S.

**ORCHIDS FOR WINTER FLOWERING (A. R. H.).**—You would find the following *Ochids* suitable: *Cattleyas labiate*, *bowringiana*, *Trianae*, and *Mantini*; *Laëlia anceps*, *Dendrobium nobile*, *D. splendens*, *grandiflorum*, *D. Cassiope*, and *D. Cartii*, and for the coolest and *Cypripedium insigne* and its many varieties, *C. leeanum* and *Coccygus cristata*; these are all easily grown and can be obtained at cheap prices. You will do best to follow our weekly calendar as regards resting and other details of cultivation. You would find *Cocos flexuosa* and *Ficus repulcra* two very useful and graceful Palms for your house.

**APPLE TREE WHITE MOULD (P. H. A.).**—The white mould or mildew on the young leafage and shoots with a white powdery coat, literally withering it up, or at least checking growth so far as to render shoots useless. The cause, probably, is found in cold chills acting upon the young shooting trees, the roots of which are in deep, poor or sour subsoil, hence the growths are weak or sickly, and at once become liable to such attacks. Dousing with flowers of sulphur is advised, but no doubt gentle spraying with the sulphate of copper as a dilute solution or Bordeaux mixture would be the most efficient. It will be well to see to the tree roots next winter. Cut away diseased shoots.

**BOILERS (Lyncombe).**—As there are so many good boilers on the market, some of which are advertised in THE GARDEN, it would be decidedly unfair for us to recommend any particular one. If your house is being erected by a horticultural builder, it would be better to seek his advice in the matter, as the slope of the ground and other considerations, revealed only by a personal inspection, might exercise a certain influence on selecting the boiler. For such a house as you name, 4-inch piping would be the best, and for a flow and return all round you would require about 150 feet. The heights named would give a slope of roof suitable for plants in general. A suitable glass for your house will be 21oz.

**BOILER (Nepenthes).**—No particular harm is likely to be caused to your boiler by allowing the water in it to reach the boiling point; in fact, to a certain extent it helps to prevent the furry deposit, which is very troublesome with some waters. At the same time, this boiling of the water, and then allowing it to gradually cool, must cause a most erratic temperature in the greenhouse, which is certainly not conducive to the welfare of the plants contained therein. Another effect is that excessive heat causes such a dry atmosphere that plants suffer and insect pests thrive. For an ordinary greenhouse in cold, wintry weather a night temperature of 46°, rising during the day from 5° to 10°, is very suitable.

**VINE FUNGUS (J. G.).**—The fine brown speck so abundantly found on the under sides of the Vine leaves sent is evidently one of the imported fungi. Dr. M. C. Cooke, the famous mycologist, describes at least a dozen somewhat similar fungoid diseases of the Vine in his papers in the Journals of the Royal Horticultural Society, but gives no remedies. What seems probable is that the atmosphere of the vineyard has been kept too close and damp. A top-dressing of 4 inches of rotten manure to the border in winter would rather conduce to sourness than to healthy growth. Painting the under sides of the leaves with sulphur paste or soft soap and sulphur seems the only feasible remedy, with much drier air.

**FERNS FOR EAST AFRICA (Calcutta).**—Gymnogrammes are the most suitable Ferns for hanging baskets in the position you suggest. These may be grown from spores, but they require more attention than is usually necessary when raising plants from seeds. Why not take out a few little plants packed in a small Wardian case? Have them on deck under the awning, where you could give them a little attention on the voyage out. The following are the most suitable kinds for the purpose, and can be obtained fairly cheap from any good nurseryman: *G. dohrydenae*, *G. schizophylla* var. *gloriosae*, *G. calomelanos*, and var. *Aistonii*, *chrysophylla*, and *peruviana*. They must be kept well watered when growing freely. The Fern you speak of is no doubt a *Nephrolepis*, but these are not so suitable for growing in full sunlight. The species *N. cordifolia* and *N. exaltata* you should be able to obtain in East Africa, as they are common in the Tropics. The Hart's-tongue Fern might live out there, but you could not hope to grow it to perfection. It requires a season of rest, which it would not get, as you say the climate is the same all the year round. There are plenty of tropical Ferns very similar to the Hart's-tongue. Why not grow these? The *Asparagus* is not a Fern, although it is commonly spoken of as such. You could take seeds of these out with you. A. Sprengeri is one of the best for baskets.

**NAMES OF PLANTS — Mrs. K. —** 1. *Corydalis lutea*; 2. *Rosa spinosissima* var.  *flore-pleno*; 3. *Saponaria calabrica* (Soapwort); 4. *Polemonium reptans*; 5. *Lord Penzance's Hybrid Sweet Briar Lady Penzance*; 6. *Haenaria bifolia* var. *chlorantha*; 7. *Ornithogalum umbellatum*; 8. *Rosa, garden var.* — *J. Hill.* — *Neottia Nidus-avis* (Bird's-nest Orchid). — *H. Mattocks.* — 1. *Rhododendron* (probably *R. grande* or *R. argenteum*); 2. *Craegus Carrère*; 3. — *E. F. B.* — *Viola periclyptera*. — *Lady D.* — *Cantua buxifolia*. — *E. G. L.* — The yellow flower is *Rhododendron flavum* (*Azalea pontica*), and the pink *R. sinense* var. (*Azalea mollis* var.). — *F. B.* — 1. *Orchis Morio*; 2. *Neottia Nidus-avis*.



## SOCIETIES.

## ROYAL BOTANIC SOCIETY'S GREAT SUMMER SHOW.

A MOST attractive show was got together on the 12th, 13th, and 14th inst., embracing a large variety of plants and flowers.

## ROSES.

The Roses were a special feature, the beautiful group set up by Messrs. W. Paul and Son, Waltham Cross, being one that called for special praise. Blossoms hung in graceful festoons on freely flowered plants of Lady Gay, The Farquhar (a very elegant pink sort), Philadelphia Rambler (an improvement on the old Crimson Rambler), Dorothy Perkins, and the beautiful Debutante. The single-flowered Ramblers were charming. A fine lot of dwarfs made a delightful groundwork, and among these were Celia and the new Earl of Warwick.

Mr. George Mount of Canterbury arranged a grand lot of Roses on a table with a background of Crimson Rambler. Interspersed among them were wichuriana rubra, Pink Roamer, and the Blush Rambler, together with Dorothy Perkins. Arranged in stands were lovely specimens of Frau Karl Druschki, Mrs. John Laing, Ulrich Brunner, and others. The groundwork was made up of boxes of new and choice sorts.

Mr. Charles Turner, Slough, had a lovely group of Roses representing well-grown Ramblers in pots in which the popular Crimson Rambler was well displayed; Dorothy Perkins was also good. Carnations and hardy Ferns made a welcome break.

Messrs. Hobbies Limited, at one end of the third tent, had an interesting group of Roses, in which Dorothy Perkins, Farquhar, Lady Gay, and Hlawatha were conspicuous. The new Vitis henryana was well shown.

Mr. George Prince, Longworth, Berks, had a fine table of cut Roses, including a thoroughly representative display of garden Roses and a lovely lot of the better exhibition sorts.

## CARNATIONS.

Mr. C. F. Waters, Deanland Nursery, Balcombe, had a charming display of Carnations, in which vases of Mrs. T. W. Lawson, Harry Crane, Cecilia, Princess of Wales (Malmesdon), Harlowarden, and Enochasters were conspicuous for their fine quality.

Mr. Edward Wagg, Islet, Maidenhead (gardener, Mr. D. Phillips), had a striking group of large-flowered Carnations, including well-grown specimens of Cecilia, Princess of Wales, the bluish Malmesdon, Yellow Girl (new), and several other lovely forms. This group filled one end of the third tent.

Mr. H. L. Bischoffsheim, The Warren House, Stanmore (gardener, Mr. Ellis), showed an attractive group of Malmesdon Carnations. The plants were conspicuous for the fine quality of both plants and flowers, the former being freely flowered, and the latter of the very best colour.

Messrs. Hugh Low and Co., Bush Hill Park, N., had a table group of Malmesdon and other Carnations. These included most of the popular sorts, the flowers being very fresh and of good colour. A nice lot of *Metrodieros floribunda* was also a feature.

The Carnations from Mr. S. Mortimer, Rowledge, Farnham, as usual, were a beautiful lot, and were confined to the Malmesdon type of the flower. All the popular sorts were represented. Mr. Mortimer also exhibited two seedling Cucumbers.

## OTHER PLANTS AND FLOWERS.

Lady Northcliffe, Sutton Place, Guildford (gardener, Mr. Gosley), had a magnificent lot of large, freely-flowered, well-grown herbaceous Calceolarias, which embraced colours of a most varied character. This was a grand display, the plants being interspersed with Ferns and other foliaged plants.

Messrs. John Peed and Son, West Norwood, filled a great length of tabling with groups of tuberous Begonias, Streptocarpus, Gloxinias, Japanese Maples, and a pleasing collection of alpine plants.

Mr. Charles W. Broadmore, Winchester, displayed a great number of Sweet Peas in large and handsome bunches. Thirty bunches of Royal Sovereign Viola with sixty bunches of Sweet Peas made a glorious display.

Messrs. Hogg and Robertson, Dublin, had a grand collection of both German and Spanish Irises, Lilies, St. Brid Anemones, and Ranunculus, all in bunches, which made one of the most delightful exhibits of the kind we have seen.

Mr. W. J. Godfrey, Exmouth, Devon, set up a large table group of fancy and show Pelargoniums, Poppies and Solanum Wendlandi, and with Ivy-leaved Pelargoniums in round wicker baskets they made a dainty exhibit. Among the show and fancy Pelargoniums Loveliness, Model, and Egyptian were striking examples. Devonshire Lass is a good rose-pink Ivy-leaved Pelargonium, being exceedingly free-flowering and of good colour.

Messrs. Barr and Sons, Covent Garden, W.C., showed a unique group of Japanese pigmy trees, some of which were most pleasing, the Acers particularly so. From the same firm came a large table group of general herbaceous and rock plants. The latter were set up in a charming manner, Cypripedium spectabile was noteworthy among the many other good things. Handsome bunches of Spanish Iris, Lupins, Oriental Poppies, Pyrethrums, and other subjects made a large and comprehensive group.

Messrs. G. and A. Clark, Limited, Dover, set up a table group of rock plants, supported on either side by Pyrethrums, Irises, and other hardy plants in grand condition. The more striking Pyrethrums were Margaret Moore (a

new true pink single), and of the double sorts Carl Vogel (white), Wega (golden salmon), Captain Nares (crimson-carmine), and Nemesis (carmine-crimson).

Sweet Peas from Messrs. Watkins and Simpson, Tavistock Street, W.C., made a handsome display. Gladys Unwin, Norah Unwin (the new white), C. J. Castle, Mrs. Alfred Watkins, Frank Dolby, Evelyn Byatt, and Gladys Unwin improved were among the more conspicuous.

Mr. L. R. Russell, Richmond, had a pretty display of Pyrethrums and Irises. Of the former Lord Rosebery, Margaret Moore, and Dagon are three excellent varieties.

Mr. Amos Perry, Winchmore Hill, had a most meritorious display of hardy flowers, in which Oriental Poppies were a feature. The new Mrs. Perry, rich salmon, and Queen Alexandra, a lighter shade of the same colour, are two beauties. There were several other equally good novelties.

Messrs. W. and J. Brown, Stamford and Peterborough, made an attractive display of Petunias, Carnations, Aquilegias and hardy plants in variety.

Messrs. George Jackson and Son, Woking, had a grand bank of hardy plants in flower. Conspicuous among this group were Oriental Poppies, German Irises, Pyrethrums, and a collection of alpine plants.

Mr. J. Williams, Ealing, showed rustic stands for table decoration, arranged to great advantage with flowers.

Messrs. Kelway and Son, Langport, Somerset, had a very large and comprehensive group of their far-famed Paeonies, representing a charming assortment of novelties. Sparmint (salmon rose), Agnes Mary Kelway (dark guards with yellow centre), Empire Day (cherry red), and Chalice (a large rosy pink single sort) were notable examples in this beautiful display. Delphiniums, Pyrethrums, and tree Lupines were a grand lot.

Anemones from Messrs. Reamsbottom and Co., Geashill, King's County, were an attractive exhibit. Set up as they were on a white ground the beautiful flowers with their own foliage were very pleasing.

Mr. J. R. Box, West Wickham, had a group of rock and alpine plants. These were attractively set up, and much taste was displayed in their disposition.

## FRUIT.

Messrs. Rivers, Sawbridgeworth, Herts, made one of their meritorious displays of Peaches, Nectarines, and Plums. The new Peach Peregrine is a variety that has made an excellent impression, and it has come to stay. Early Rivers' Plum is an excellent early Plum, and forces well. Early Rivers' Nectarine and Cardinal, too, are two sorts that have come to be regarded with much favour for market as well as for private use. These were extensively shown growing in pots.

## MISCELLANEOUS EXHIBITS.

The Agent-General for South Australia sent a most interesting exhibit of dried fruits, canned fruits, as well as excellent examples of Apples and Pears.

Western Australia was represented in a somewhat similar way, but in a less comprehensive manner. Victoria also had an interesting exhibit of its products, which indicated very clearly that our Colonies are fully alive to their opportunities.

Messrs. Ransomes displayed on the lawn in front of the conservatory their well-known garden appliances.

Mrs. Harriet Scott of Woodside, S.E., displayed a number of pots and tools of a high order of merit.

Pottery from Messrs. D. Dowd and Son, Hammermith, was well represented, showing the excellence of their wares.

Messrs. Dunfords exhibited their new lawn broom, which possesses many advantages.

Fertilisers from Messrs. Alexander Cross and Son, Limited, Glasgow, were displayed in a neatly arranged stand, and horticultural sundries from Messrs. Valls and Co. made an interesting exhibit.

Bollers in variety from the Thames Bank Iron Company showed the up-to-date work of this well-known boiler company.

Economic Fencing was not the least interesting of the sundries exhibits. The new Osterley table-tray (Bailey's patent) is a great boon to the garden-loving public, being a collapsible table that makes a useful tray. This came from Messrs. Abbott Brothers, Southall, near London. Sundries from Mr. George H. Sage, 71, Manor Road, Richmond, S.W., made a good display.

Some labels and other contrivances from Mr. John Pinches, Camberwell, S.E., displayed the lasting character of his wares.

The textile of the future—Ramie—was represented in a variety of ways, and proved that this excellent fibre is making headway.

Messrs. Merryweather and Sons, Limited, 63, Long Acre, had a very large and representative group of novelties in watering, spraying, water supply, and fire-extinguishing apparatus.

To Mr. E. F. Hawes, the garden superintendent, much praise is due for the excellence of the arrangements.

## CROYDON HORTICULTURAL SOCIETY.

ON the 13th inst. a visit was made to Coombe Wood, the residence of Mr. Arthur Lloyd, and he, enthusiast as he is, personally conducted the visitors through his gardens. Coombe Wood, standing as it does at the foot of Shirley Hills, still retains its rural aspect, and although artificial aid has been called into requisition, it adds to rather than depreciates the natural beauty of the gardens. Here we find Rhododendrons and Azaleas growing luxuriantly in broad expanses with colours harmonising throughout, showing the great care exercised in planting. Another feature of these gardens is the rock or alpine collection, which in itself is a feast for the specialist. In taking a bird's-eye view of the garden one is struck by the natural

combination of colour and growth, and extending the survey to the length of the garden, one cannot fail to notice the miniature water stream, which, in its gentle flow, embellishes the picture, and also imparts to the plants growing by its sides the necessary moisture required. Following the stream to its termination we find another pond holding treasures in various kinds of Nymphaeas. Mr. Coppin and his assistant staff of gardeners, evidently, like their employer, exercised a keen interest in their endeavours to bring it as near perfection as possible. Almost opposite is Ocombe House, the residence of Mr. Frank Lloyd, and he, in his turn, welcomed the members, who, under the guidance of Mr. M. E. Mills, the head-gardener, partook of another treat to the eyesight. This was the second annual visit to these gardens, and the appreciation of the members increases with each visit, as there is always plenty to interest and instruct.

## ROYAL HORTICULTURAL SOCIETY.

JUNE 12.—NEW ORCHIDS.

*Oncidium monachicum*.—From Sir F. Wigan, Bart. One of the *O. macranthum* type, with polished brown sepals and petals, edged with yellow. The flowers were numerous on a strong raceme. Award of merit.

*Laelio-Cattleya Kathleen Grey*.—From Sir F. Wigan. A handsome hybrid from *Laelio-Cattleya canhamiana* crossed with *Laelia tenebrosa*. The flowers are large, the sepals and petals flushed with crimson, the lip very rich magenta. Award of merit.

*Cattleya Mossia* var. *Victoria Regina*, from Messrs. Stanley and Co., Southgate. A large flowered variety, the petals very broad, and with the sepals nearly white, the lip fringed and tinted with mauve. Very delicate and beautiful. First-class certificate.

*Odontopogon crispum Xenithos* var. *Walkera*, from W. E. Walker, Esq., Percy Lodge, Winchmore Hill (gardener Mr. E. Bunney). A distinct variety with well formed medium sized flowers, pure white, with a few spots of yellow on the lip and sepals. Award of merit.

*Cattleya Mendalis* var. *Mrs. Frederick Knollys*.—From F. Wellesley, Esq., Woking (gardener, Mr. W. Hopkins). A charming variety, the sepals and petals delicately bluish tinted, the lip white with a faint tinge of mauve on the margin. Award of merit.

*Cattleya Mossia reinckiana The Baron*.—From Baron Schröder, The Dell, Egham (gardener, Mr. H. Ballantine). A magnificent flower with broad petals and sepals, pure white, the lip crimson-purple, gold in the throat, and the margin white. First-class certificate, also the first diploma in the class.

*Luddemanniana Peucetorum*.—From Miss Willmott, Warley Place (gardener, Mr. F. Guoch). A peculiar and interesting plant with a pendulous raceme 2 feet in length, the flowers borne towards the apex, the sepals clear coloured inside, the petals and lip bright orange. Botanical certificate.

*Phalaenopsis violacea Heaton variety*.—From Messrs. Charlesworth and Co. A distinct and beautiful variety, the lower sepals rich purplish crimson, the lip and column of a similar tint, the upper sepals and petals white tinted pale green, and with slight crimson at the base. Award of merit.

*Thunia setchiana Burford variety*.—From Sir Trevor Lawrence, Bart. A superb variety. The sepals and petals pure white, the lip yellow, fringed in the centre, veined pale crimson-mauve, very distinct. Award of merit.

*Tuckettia Jenmanii*.—From Sir Trevor Lawrence. A diminutive plant, with linear channelled leaves and tiny creamy white flowers. Botanical certificate.

*Epidendrum confusum*.—From Sir Trevor Lawrence. A distinct and interesting species, with creamy, narrow sepals and petals, and a hooded or shell-like lip, parallel, veined with purple.

*Laelio-Cattleya canhamiana Meteor*.—From Messrs. Sander and Sons. A magnificent variety with bold, handsome flowers, the sepals and petals bluish tinted, the lip broad, intensely deep glowing crimson, with a gold throat. Award of merit.

**ERRATUM.**—In the report of the Temple Show published as a supplement to THE GARDEN of the 2nd inst., in a note under the heading "Fruit and Vegetables," for A. F. Walters, Esq., Bear Wood, Wokingham, read A. F. Walter, Esq.

## BOOKS AND PUBLICATIONS RECEIVED.

Atlas of the World's Commerce: Part 5 of this most excellent atlas, which is being issued by Messrs. George Newnes, Limited, Southampton Street, London, has just been published, and only confirms the great value which commercial men have placed on this production. It is thoroughly well printed and most instructive. We specially advise all who intend entering the commercial world to study it carefully.

Lady Rose's Daughter, by Mrs. Humphry Ward, and The Martyred Fool, by David Christie Murray (Newnes' sixpenny editions); Strand, Grand, and Fry's Magazines for June (Newnes); Bulletins of the New York Agricultural Experiment Station; Report on the Phenological Observations for 1905, by Edward Mawley, F.R.Met.Soc., V.M.H.; Department of Agriculture for Ireland Leaflet on American Gooseberry Mildew.

## CATALOGUES RECEIVED.

Roses in Pots, Clematises, Carnations, &c.—George Cooling and Sons, Bath.

\* \* The Yearly Subscription to THE GARDEN is: Inland 6s. 6d.; Foreign, 8s. 9d.

# THE GARDEN.

No. 1806.—VOL. LXIX.

JUNE 30, 1906.

## PROSPECTS OF THE ROSE SEASON.

**M**ANY of your readers, as well as the members of the National Rose Society (whose numbers are fast approaching 2,000), are no doubt looking forward with interest to the above event, and are wondering what are the prospects of their seeing a better show than usual this year. Something depends on the weather of the next few days, and, as might be expected, the requirements of different portions of the country vary considerably. I have been gathering in the opinions of the principal Rose exhibitors, to whom I am much indebted for their courteous and prompt replies to my enquiries, and taking into consideration the uncongenial spring and the trying winter, I am surprised at the general tone of quiet satisfaction with their own outlook that prevails. There is a general consensus of opinion that garden Roses, the most important feature of the exhibition from the point of view of the general public, will be finer than we have seen there for years past; and that exhibition Roses will be finer than last year, especially the Hybrid Teas and Perpetuals; the Teas seem to be later than usual with some, but a repetition of the hot spell we have just passed through will remedy that.

A few extracts from the letters of the principal Rose exhibitors from all parts of the kingdom, both amateur and professional, may prove of interest. I start with the headquarters of amateur Rose growing. Mr. E. B. Lindsell of Hitchin writes as follows: "The plants generally, especially dwarf Hybrid Perpetuals and Hybrid Teas, look better in growth and foliage than I have seen them do for years past, and the buds are generally well shaped. They are distinctly late, however, though with seasonable weather there should be a fair quantity of blooms by the 5th."

From Hitchin one turns naturally to Colchester. My numerous correspondents, both amateur and trade, from this centre are practically unanimous. "Garden Roses look very well, and are, I think, above the average. Hybrid Perpetuals and Hybrid Teas have made shorter and more robust growth than usual, and, if weather is not too forcing, should be about right for the 5th. Rain is wanted, or Teas will be late." "Garden Roses never looked better. They will be at their best about the 5th." "The Hybrid Perpetuals and Hybrid Teas are looking remarkably well; Teas are late,

no doubt they will improve later." "With us Roses promise to be at their best about the 5th to the 10th. Show varieties are strong and good, carrying promising buds, especially maidens."

From the Midlands I have the following. A well-known trade grower writes: "My Roses are looking very well indeed, and I think I shall be in good form by the 5th." A well-known amateur writes: "Plants are making splendid growth, and we are seeing the effect of the few days of rain. I shall not be at my best, as far as I can tell, till some days after the 5th. Garden Roses, however, will be fully out." Farther West I get the following: "Roses in this district are very promising this year, and we are more free from blight of all kinds than we remember for many seasons. Standards especially are looking well; early-flowering Roses are a little injured by May frosts, otherwise it will be a 'Rose' season, and the 5th should bring a good show." Still in the West Country: "Garden Roses magnificent, but here rather early. Exhibition flowers promise well, especially Teas. I think we shall have a bumper show on the 5th." "Our Roses are looking very well, we may say never better. We hope to have good flowers by July 5."

From the North I get good reports, which are unusual; in fact, I may say this is the first year that I have not been told that the show is fixed too early. One of the largest trade growers writes: "Our Roses look extremely promising, and seem to have escaped the frosts. They are rather later than last year, but we should cut some of our finest flowers about July 5. Hybrid Teas will, as usual, be the earliest; Teas should not be very late, but good dark reds look like coming last." "Shall actually be able to show at the National!" "Roses promise well, and will be earlier than was generally, I think, anticipated. The week's rain has worked wonders."

South.—Here curiously one hears that Roses are later than usual, which is as well; it will give our southern friends a chance of showing what they can do, they are always too early, at least have been of late years. From the headquarters of the Tea Rose I hear that "My Roses are looking very well indeed; we shall be in good form by the 5th." "Rather late, but Teas look well notwithstanding late frosts; should say the date would suit us better this year than it has done lately. Garden Roses will be a feature." "Roses generally much better than one has any right to expect; garden Roses particularly fine." "Roses here are decidedly late; considering the dryness of the season and the long spell of cold nights, they are looking surprisingly well, having wonderfully improved during the past week. What is now wanted is genial weather." "Summer-flowering and improved Chinas have

been in full bloom since June 10. Hybrid Perpetuals, Hybrid Teas, and Teas a fortnight later than usual. Will be unable to stage exhibition Roses on the 5th unless we get some warmer weather." I presume my correspondent meant to have added, as he has not missed a National Show for twenty years: "Early Roses hurt by late frosts, later ones look better, hope they will be all right by the 5th."

To sum up the general opinion I am sure we shall have a fine show on the 5th, much finer than at one time seemed at all probable, and if the weather is only kind for the next week it is not improbable that it will be the finest show the society has ever held in London.

There is every inducement, therefore, for your readers to make up their minds to be present this year at the Royal Botanic Gardens on July 5, and I hope I may trespass on the hospitality of your columns to ask them to go a step further than that, namely, to bring their friends with them. One used to have a slight hesitation in persuading one's friends to go to the Temple. The new Roses promise to be of quite exceptional interest. No one should miss the opportunity of seeing what promises to be an exceptional show in many respects, unique always as the largest exhibition of our national flower, and held at what is undoubtedly the ideal place for a flower show in the Metropolis—the Royal Botanic Gardens, close to Baker Street Station on the new Electric Tube.

HERBERT E. MOLYNEUX.

## THE NATIONAL ROSE SOCIETY'S SHOW.

ROYAL BOTANIC GARDENS, REGENT'S PARK,  
JULY 5.

MANAGERS of Rose and other horticultural exhibitions have hitherto had to contend with two serious difficulties: 1. How to keep the show tents cool on a hot day. 2. How to obtain for the visitors even moderately good refreshments efficiently served. At the leading exhibition of the National Rose Society, which will be held in the Royal Botanic Gardens on Thursday next, an earnest endeavour will be made to meet both these difficulties. In addition to the show tents being well ventilated, the canvas on the outside will be kept constantly moist throughout the day, should the weather prove unusually warm, by means of a steam sprayer, which will be provided and worked by Messrs. Merryweather and Sons, Long Acre, London. As regards the refreshments, a well-ventilated luncheon tent to seat nearly 400 visitors at a time will be provided, while teas can be obtained either in this tent or

under the shade of the trees in the immediate neighbourhood of it. When I say that 1,200 teas were recently served to visitors seated at tables under the trees in the Royal Botanic Gardens by the present caterers, The Frederick Hotels, Limited, to the satisfaction of all concerned, there is every reason to hope that the refreshments this year will at all events give reasonable satisfaction. Those visitors who travel to the show by the new railway from Waterloo to Baker Street will find this route a delightfully cool one.

EDWARD MAWLBY, *Hon. Secretary.*

## PRIZES FOR GARDENERS.

### AWARDS IN THE MAY COMPETITION.

#### "HOW TO GROW VIOLAS."

In almost every instance the essays were practical and interesting. On many points there was considerable unanimity of views regarding cultivation. The first prize essay is simple and comprehensive, and although propagation by seed is only just referred to in passing, there are good reasons stated for this omission. In other respects the cultivation of the Tufted Pansy is clearly laid down. The selection in this instance is one of the best. Many of the writers are considerably out of date in the varieties they recommend. A large proportion of the selected varieties are very old and far behind present-day requirements. With so many really first-rate Tufted Pansies available, it is surprising so little is known of the more recent varieties. In only one instance—the winning essay—are the beautiful little miniature-flowered Violettas referred to. The first prize paper will be printed.

The first prize is won by Major W. St. P. Bunbury, 7, Rothay Gardens, Bedford, being closely followed for second prize by

Mr. J. R. Taylor, Vicoage Road, Bracknell, Berks. An excellent essay from

Mr. M. Stell, Hespera Cottage, Glenauldyn, Ramsey, Isle of Man, secured third prize, fourth prize being awarded to

Mr. C. W. Caulfield, Bridgen House, Park Crescent, Eritch, Kent.

A large number of the papers were so practical that they deserve the highest commendation. Special mention must be made of those from Mr. William A. Dobson, Rusthall, Tunbridge Wells; Mr. Edward Moseley, 86, Courtland Avenue, Ilford, Essex; Mr. L. Lavender, Waltham Manor Gardens, Twyford, Berks; Mr. T. T. Shepard, The Uplands, Selly Hill, Birmingham; Mr. John W. Barwise, 12, Beechfield Terrace, Lancaster; Mr. M. Millard, Hartley Wintney, Winchester; Mr. W. H. Morton, St. James's Crescent, Gloucester; Mr. H. S. Hinwood, High Street, Alcester, R.S.O.; Mrs. Maggie Webster, Hope Cottage, Woolton, near Liverpool; Mr. F. Briggs, Craydale Gardens, Settle, Yorkshire; Mr. F. J. Stephenson (no address); Mr. John Hines, 128, Chestnut Road, Plumstead, Kent; Mr. Victor H. Lucas, 19, Promenade, Walney Island, Barrow-in-Furness; Mr. H. Raymond, Dinton, Salisbury; Mr. John T. Blencowe, Eastcott Gardens, Kingdon Hill, Surrey; Mr. D. E. Elder, Tyne Green, Hexham, Northumberland; and Mr. J. Corbett, Mulgrave Gardens, near Whitby, Yorks.

## THE EDITOR'S TABLE.

### SPURRED AQUILEGIAS FROM WOLVERHAMPTON.

A charming collection of Spurred Columbinas, which seem to be general garden favourites, comes from Messrs. Bakers, nurserymen, Wolverhampton. The various sorts are named, and among the most beautiful sent are Village Belle, yellow, with bluish segments; May Queen, white and purple; Village Beauty, an exquisite

mingling of cream and rose; Marguerite, pale lilac and cream; Blushing Beauty, yellow and rosy carmine; Village Maid, yellow and deep plum colour; The Bride, a flower of various shades of yellow, darkest in the centre; Coquette, bright yellow, the outer segments and spurs a rich red; Hermione, white and deep purple; Yellow Girl, yellow, as the name suggests; and Bridesmaid, which reminds one of the species *A. glandulosa*. We congratulate this firm upon their success in raising so interesting and beautiful a series of hybrid Columbinas.

### AQUILEGIAS.

A charming series of Aquilegia flowers is sent by Mr. Empeon of North Walsham with the following note. The dark purple variety is very charming. "A few Aquilegias for your table. The long-spurred ones do remarkably well with me on a strong soil over a subsoil of brick earth. The plants from which the flowers are gathered have been in one position without division from three to four years, and are very healthy."

### LATE-KEEPING APPLES.

From Ulcombe Place, near Maidstone, Mr. Alfred O. Walker writes: "I send herewith specimens of what I am informed is the Gooseberry Pippin, still in fine condition. They are from an old tree in my orchard, and have been kept in a light and airy fruit room."

[The Apples sent by our correspondent were excellent when cooked. Unlike some Apples at this season they are still of good flavour.—Ed.]

### SPURRED COLUMBINAS.

One of the most beautiful collections of Spurred Columbinas we have seen has been sent by Mrs. Scott Elliot, Teviot Lodge, Hawick, Roxburghshire. The flowers were of delightful colouring, shades of cerise, purple, yellow, rose, and white, and of large size without a suggestion of coarseness. Our correspondent writes: "Some of my seedling Aquilegias. I have worked on them for a great many years." We congratulate Mrs. Elliot upon her success.

### PYRETHRUMS FROM MESSRS. KELWAY.

A boxful of some of the finest of Messrs. Kelway and Son's Pyrethrums is a reminder of the great beauty of this early summer flower. Both single and double varieties were sent, and of the former particularly worthy of mention are the following: Radical Ted, a very pretty shade of pale purple; The Shah, deep purple, a beautiful colour; J. R. Twardy, cerise; Tatler, damask; and Goring Thomas, mauve. Messrs. Kelway have raised many very fine double varieties, and those sent were St. Patrick, mauve; Hercule, soft pink; and Florentine, blush.

### DELPHINIUMS AND PEONIES FROM LANGPORT.

Messrs. Kelway and Son send from Langport, Somerset, flowers of two of the most important of summer-flowering plants—the Delphinium and Peony. The Delphiniums were especially bright and varied, and comprised many shades of blue and purple. Diamond Jubilee is rich blue, with a mauve-shaded centre; R. P. Ker, a delightful pale blue; Constitution, an intense royal blue, with cream centre; Dagonet, a beautiful dark purple single flower, the centre white; Mrs. Gower, lilac and mauve, and Parim, deep blue. The Peonies were superb, and comprised both single and double varieties. Of the former, the most conspicuous were Doris, bright rose; Flag of Truce, pure white, a large and very handsome flower; George R. Sims, rose-purple; Flag of War, an intense blood crimson, very showy; Treasure Cup, pale salmon pink, with a centre of golden-coloured anthers. The most picturesque of the doubles were Griff Thomas, light rose, very showy; Kitty Green, rosy lavender, very sweetly scented; Grant Allen, deep plum colour; Lady's Realm, white flushed with pink, semi-double, and Mrs. Stubbs, very fragrant, the colour flesh, with white centre.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

June 30.—Windsor and Eton Rose Show.  
July 3.—Sutton and Harrow Rose Shows.  
July 4.—Croydon, Ealing, and Tunbridge Wells Rose Shows, and Hanley Horticultural Fête (two days).  
July 5.—National Rose Society's Show, Royal Botanic Gardens, Regent's Park (open at noon, close at 7 p.m.). National Sweet Pea Society's Show, Horticultural Hall, Vincent Square (open at 12.30).

**Apple Hanwell Souring.**—The discussion on this Apple has been most interesting to me, as there are two very fine standard trees in these gardens, the only trees left, in what at one time was a large orchard, probably planted about eighty years since. These have been spared from time to time owing to their fine cropping qualities and the excellence of the fruit when cooked. It is certainly one of the best sauce Apples I know and a splendid keeper, worthy a place in any collection.—E. BECKETT, *Aldenham House Gardens, Elstree.*

**Rhubarb as a vegetable.**—With regard to the letter of "E. H." in THE GARDEN of the 16th inst., re the use of Rhubarb leaves as a vegetable, it would be interesting and useful to know how much of the prevalent rheumatism, chalky joints, and gall stones are due to the deposition in the system of the lime contained in Rhubarb. I know of more than one specialist who has advised consultants to abstain from Rhubarb for this very reason, and if ever a reader suffered from gall stones caused in this way he would gladly banish Rhubarb from his garden.—H. I.

**New Tomatoes at Lookinge.**—Mr. Fyfe always grows Tomatoes remarkably well, but this year they are especially interesting. He has been making a trial of some of the best of the new ones with some of the old standard varieties, and during my visit about the middle of May I was much struck with the health and vigour of the plants in pots and the enormous crops of fruit many of the plants were carrying. Carter's Sunrise fully bore out the good opinion I formed of it last season. The plants were laden with fruit of the finest quality. It is the most free-setting variety I know. The fruit is of medium size, fine colour, and extremely handsome. Veitch's new Dwarf Red was another of great merit, and should prove an extremely useful variety for small gardens especially. The plant much resembles the growth of Dwarf Champion, an old favourite of Mr. Fyfe's; but the fruit when ripe is a beautiful rich crimson. The plant is very free; it will make a good exhibition variety. A seedling of Mr. Fyfe's is also very promising and perfectly distinct from anything I know. It is very free setting, distinct, and pleasing in shape. This will, no doubt, be seen in London during the summer.—E. B.

**Gardening appointments in Scotland.**—Mr. William Smith, gardener to the Right Hon. the Earl of Stair at Orenford Castle, Midlothian, has been appointed gardener to the Right Hon. the Earl of Durham, Lambton Castle, Durham. Mr. Smith has been for a number of years at Orenford, and in this appointment has done excellent work, besides taking a prominent part in the work of the Royal Caledonian Horticultural Society and the Scottish Horticultural Association, in both of which he has occupied important positions. Mr. Smith has been a well-known and successful exhibitor at the exhibitions of these institutions, and his services as a judge have been largely in demand elsewhere. His departure from the neighbourhood of Edinburgh will be viewed with much regret. He is to be succeeded by Mr. Benjamin Nees, formerly foreman in the garden of Sir Robert Moncrieffe, Bart., at Moncrieffe House, Perthshire, and latterly with Messrs. James Dickson and Sons, nurserymen, Edinburgh.

**The Bowdon Amateur Horticultural Club** held its summer meeting on the 15th inst. Owing to the early date and the inclement weather the flowers shown were not quite so plentiful nor of such a high standard as usual, but a very fine strain of Columbine on the stand of Rigby Armitage, Esq., and the Irises of Herbert Lindley, Esq., and Miss Rigby, commanded universal admiration. A large audience enjoyed the very practical paper, "Garden Thoughts and Garden Problems," read by Arthur Goodwin, Esq., The Elms, Kidderminster, which treated, among other things, of the best way to stake herbaceous plants and Roses, and how to combat "Yellow stripe" disease among Narcissi.

**The preservation of wild flowers and the Primrose League.**—Could you not persuade those of your readers who are members of the Primrose League to make the spread of the Primrose as a wild flower a condition of membership? It is melancholy indeed to reflect that a society bearing the name of the Primrose should have done anything to lessen its abundance. If the members of the league would only resolve to protect the plant in woods and brakes where it still abounds, and, by raising plants from seed, to restore it where it has disappeared and plant it where it did not grow before, they would indeed deserve well of their country.—F. A. S.

**Early outdoor Strawberries.**—The first gathering of outdoor Strawberries is often as much appreciated as that of the earliest fruits grown in pots, and doubly so if it can be obtained a few days in advance of the general crop. There is keen competition among market growers in getting the first outdoor fruits on the market, and lucky is the man who is a day or two in advance of his neighbour. We gathered our first dish this year on June 10 (two days later than last year), from a plantation of Noble. The plants are on a narrow border at the foot of a wall facing south, and sheltered from the cold east winds which have been very prevalent this spring, and which, to a great extent, have retarded the development of early fruits and vegetables. This variety has not all the qualities of a first-rate Strawberry, but when well grown the fruits are large, of good colour and appearance, and very freely produced; when gathered at the proper time the flavour is good. Its chief quality is its earliness in ripening, which makes it invaluable where fruit is in great demand. During the flowering period, and for some time after the fruits are set, blinds are drawn down over the plants every night. Lights have also been used as a covering, but no appreciable advantage has resulted over those which were covered with blinds. The blinds are attached to a light framework about 2 feet from the ground and drawn up and down with cords. The best results are obtained from plants one year old. These should be propagated and planted as early as possible, placing them more closely together than for the main crop plants.—E. H., *Frogmore, Windsor.*

**Handsome Lime trees.**—The common Lime is so generally useful and endures so much rough treatment that it is often planted to the exclusion of all other members of the same genus. This is unfortunate, for there are several handsome forms of *Tilia* which far surpass the ordinary type in all respects, and which will also thrive under similar trying conditions of soil and atmosphere. Among these the drooping Lime *Tilia petiolaris* merits a foremost place, as it is free in growth, of pendulous habit, and the large leaves with silvery under surfaces have a charming appearance in the slightest breeze. A few fine specimens may be seen in the London parks, and as far east as Victoria Park the tree grows well, but it should be planted much more frequently than is the rule at present. The best examples in the Metropolitan district are at Kew, where the collection of Limes is extremely good, and a magnificent

specimen near the Succulent House conveys an admirable idea of what this tree can become under suitable circumstances. Bolder in habit, with enormous leaves, *T. spectabilis* is much less frequently seen than the preceding, though in some respects it is without a rival. It was raised from a cross between *T. petiolaris* and *T. americana*, and, like so many hybrids, seems to have gained in vigour as compared with both the parents. The tree naturally assumes a somewhat conical form, and grows with great rapidity in good soil. Another hybrid Lime of some merit is *T. orbicularis*, which was obtained from *T. petiolaris* and *T. dasystyla*; it has conspicuously large leaves and is of strong habit, quite distinct from either of the parents. The present is the right time to see Limes in perfection, and as town trees they have much in their favour, though they are often condemned for their early defoliation.—L. CASTLE.

**A notable Auricula.**—Noticing in THE GARDEN that you like to hear of interesting flowers, I write to let you know that I have an Auricula flower which is almost 2½ inches in diameter. The seed was saved from the finest plants for a good many years, and this is one of the seedlings. It is flowering for the third time. Last year one flower was semi-double; this year there are several. Some young plants from its seed are about 2 inches in diameter. I should like to know if other people have so large an Auricula. It has always been outside. Among my Polyanthus seedlings this year there bloomed one a bright blue, nearly as pure as a Gentian. This was also from my own-collected seed; the others were crimson. These are in an old, high-walled garden.—J. T.

**Hardy flowers at Wisley.**—The gardens of the Royal Horticultural Society contain many charming spots, made additionally attractive by careful and discriminating gardening. The illustration shows a characteristic corner where the Cape Pond Weed (*Aponogeton distachyon*) covers the pond surface with a mass of its curious flowers, while the flower-spikes of the Siberian Iris that cluster on the pond margins add a touch of delicate colouring. In the woodland Azaleas and Rhodo-

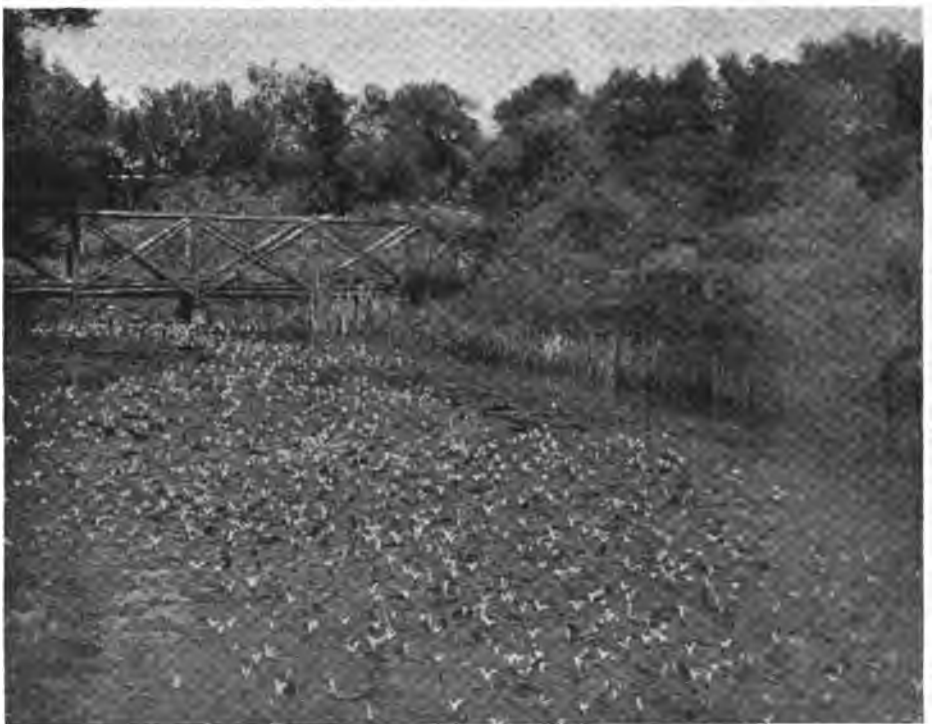
dendrons make gorgeous colour masses that gain an added brilliancy from the fresh green of the leafy glades in which they grow. Most brilliant of all the flower pictures at Wisley a few weeks ago, however, was that composed chiefly of Japanese Primroses (*Primula japonica*) in many varied shades of colour and of the Welsh Poppy (*Meconopsis cambrica*). A little nook out of the woodland was a mass of rich colour, the yellow and orange tints of the Poppies, the reds, pinks, purples, and whites of the Primroses, and the large pure white flowers of the Wood Lily (*Trillium*), relieved by the tender green of the unfolding Fern fronds, made a charming association of leaf and flower, and one that must long rest in the mind's eye of all who saw it. What an accommodating plant *Primula japonica* is! It seemed equally happy at Wisley growing at the water's edge, in the ordinary border soil, and, most astonishing of all, in the hard surface of a gravel path!

## THE ROSE GARDEN.

### MILDEW ON ROSES.

(Continued from page 325.)

IT is impossible for anyone who has given any thought and attention to the subject not to recognise the fact that mildew to a certain extent must actually exist in the blood of certain varieties. This assertion may be as difficult to prove as it will be found to confute, but at all events no harm will be done by discussing it. For some years I have been carefully examining the plants in my collection with a view to discovering what are the chief characteristics of those varieties which suffer most from mildew and *vice versa*, but the definite conclusions arrived at up to the present must be confessed as very few. One point, however, has occurred to me. The inherency of mildew in certain varieties being an undoubted fact, it appears to me that raisers should be most careful in selecting their varieties for cross-fertilisation, and avoid employing those which are notoriously susceptible to mildew



THE CAPE POND WEED IN THE ROYAL HORTICULTURAL SOCIETY'S GARDENS AT WISLEY



Last season I particularly noticed that two new Roses, the progeny of Fisher Holmes in each case, were very badly affected, these being George Laing Paul (Caroline Testout  $\times$  Fisher Holmes) and Etoile de France (Mme. Abel Chatenay  $\times$  Fisher Holmes). On the other hand, Messrs. Soupert and Notting's splendid new Hybrid Tea Anne-Marie Soupert, which was the result of a cross between Mme. Edmée Metz and Mme. Jules Grolez, has to my knowledge proved absolutely free from mildew in several widely-situated gardens and nurseries where it was on trial. Now it should be observed that Mme. Edmée Metz was sent out as a mildew-proof variety, and this character it has certainly not belied, though there is nothing in the appearance of its foliage (as far as I can judge) to account for this desirable trait. That it should have produced a seedling in which this trait is shown is well worth mentioning, and helps to give colour to my deductions as to the future possibility of a race of Roses exempt, or almost so, from any taint of mildew. Meanwhile I am speculating as to the parentage of Mme. Edmée Metz, a point on which Messrs. Soupert and Notting unfortunately do not enlighten us in their catalogue. Another point worth noting is that all the true Chinas are quite free from mildew, and I should imagine that by introducing the China strain in cross-breeding you might assist in eradicating the tendency to mildew.

#### OVER-PROPAGATION AS A CAUSE OF MILDREW.

Another factor which does undoubtedly increase the tendency to mildew is the system of rapid propagation which has been adopted in almost every nursery. No sooner is a new Rose placed upon the market than express methods are employed to work up a saleable stock of it. To accomplish this the chief method is, of course, that of grafting in heat under glass, and the cultivator has no time to consider whether in the process the Rose loses something of its constitution and becomes weakened and a prey to mildew. It seems to be conclusively proved that the rapid propagation of Potatoes under glass, which took place during the so-called boom, was the means of wrecking the constitution and stamina of some of the varieties, and I can well imagine that, as far as Roses are concerned, the same thing occurs. Over-propagation is frequently the cause of new varieties not attaining their highest standard of excellence until they have been in commerce for a few years. As regards mildew, it is obvious that the high temperatures resorted to in order to bring on the plants to a saleable size helps to weaken them and make them prone to the ravages of this pest. Last year I well remember being shown a big house of such plants almost ready to be hardened off, and, remarking on the unhealthy state of one large batch, was informed that they were "Mildew" Grant, a name which at the time seemed most singularly appropriate. However, I have often thought since that the highly artificial method of propagation, and the enormous extent to which it was carried out in the case of such a much-vaunted Rose as Mildred Grant, was scarcely warranted to strengthen its constitution or lessen its susceptibility to mildew.

#### COMMON CAUSES OF MILDREW.

Thus far I have not touched upon the common causes of mildew, but it will now be wise to enumerate these, because many people still seem unacquainted with them. First and foremost is the weather. A long spell of cold, wet, sunless weather after hot, sunny days is usually the beginning of the mischief; but all sudden changes of temperature act as an incentive to the disease. Dry soil at the roots, bad drainage, draughts, and watering with cold tap-water are other responsible causes. The last point is one that should be emphasised, for my experience proves that it is an unfailing source of mildew. Those who feel obliged to water their plants should draw their supply from open-air tanks or tubs to which the sun has access; but if this is not possible, then watering should be entirely abandoned and the

hoe only used. But the most frequent, perhaps, of all the causes of mildew is produced by growing the plants in a too small area or by the presence of large trees. Years ago I noticed that the Roses growing in the walled-in portion of the garden here were more affected than those in beds in the open garden. Roses want plenty of pure air and ample space, and those who are obliged to grow their plants in back yards and other close and circumscribed situations must, I fear, regard mildew as part of the bargain. In a plantation made last autumn on a windy hillside 500 feet above sea level I have hopes of evading much of the disease which is so prevalent in the valley below. The most windy position in a garden is not, perhaps, beneficial for securing the most perfect flowers, but in such a spot the mildew spores have more difficulty in finding a footing.

Kidderminster. ARTHUR R. GOODWIN.

(To be continued.)

I NOTE your correspondent "R. E. B." refers to sulphur and potassium sulphide solution as being now quite superseded for the eradication of mildew on Roses by such standard compounds as Mo-Effio and Lysol. I desire to add my experience, as I am sure it will interest many of your rosarian readers. Up to last year my plants had for several seasons, both in the greenhouse and outside, been severely attacked by mildew, and I applied sulphur and sulphide of potassium many times, but to no purpose. Last year I was especially anxious to exhibit at our local show, owing to friendly rivalry among several of my rosarian friends, and in the month of June was beginning to despair of competing, owing to this dreaded pest. A neighbour informed me of these two compounds, and, of course, I was only too eager to try them. To my intense surprise each had the desired effect. I used them in an experimental manner on two separate Rose trees situated side by side, the result being that I won the National Rose Society's bronze medal with Frau Karl Druschki in a very keen competition. The plant from which this Rose was cut was previously very badly infested with mildew, and was in the bed which was sprayed with Mo-Effio, all the other plants in the same bed being equally benefited. In my humble opinion this latter preparation is a certain and sure remedy, without in any way injuring the foliage, whereas Lysol has a tendency to wither the foliage unless a very weak solution is used, which is not effective. I also note that your contributor Mr. Arthur Goodwin has had the same experience as to the injury caused by Lysol. In conclusion, I may state that my plants in the greenhouse and outside are most promising, despite the inclement weather which has this year been experienced, and I am solely relying upon Mo-Effio (by the way, the makers of it are the Mo-Effio Chemical Company) to keep my plants in a healthy condition.

Saltaire.

ROSA RUGOSA.

## THE GREENHOUSE.

### POINSETTIAS.

**B**Y giving attention to these now plants with beautiful bracts for winter use may be had. The Poinsettia, with its handsome and richly-coloured bracts, is a most valuable plant in winter. Those who have grown them already have material from which to make a start, otherwise an old plant or two should be obtained to work up a stock. After Poinsettias are past their beauty water should be gradually withheld, and for a short time altogether; this is called resting, and is most necessary to their future well-being. No time should be lost if the finest bracts are wanted. Shake out the old plants and pot into a soil of three parts loam and two parts leaf-soil, with enough sand to keep it open, using pots large enough to hold the roots

comfortably. If the plants are at all "leggy" they should be shortened to 12 inches or 15 inches.

Place the plants in a warm house, giving little water till roots are formed, but syringe twice a day. The buds will soon break under these conditions, and when the shoots are about 2 inches long the upper portions should be taken off and inserted as cuttings, but to facilitate the striking a small piece of old wood should be left at the base of each. Pot singly into 2½-inch pots. For rooting the cuttings, if bottom-heat can be obtained so much the better, they should be covered with a bell-glass or sheet of glass. One or two shifts will be required, although 5-inch pots will be found most useful. Keep the plants always close to the glass. This is not possible if they are subjected to too much heat after they are rooted, and are kept far from the glass for a long time.

The better way to deal with them in summer, when they have made growth and filled their pots with roots, is to place them in a cool pit, plunging the pots in ashes or leaves. Let them be close to the glass, and water carefully, giving a watering once a week with weak liquid manure.

G. WALLER.

Cock Crow Hill, Dilton Hill, Surbiton.

### NICOTIANA SANDERÆ.

IT MAY be of interest to some of the readers of THE GARDEN to know that the above plant makes a very beautiful subject for winter flowering in the greenhouse. Having given it a trial this year I can with confidence recommend it for that purpose. It has been in bloom for six months past, and apparently will continue so for some time. Not only does it flower continuously, but the colour is so much brighter than when grown outside in summer. If sown in June, and accorded similar treatment as for Cinerarias, and brought into the greenhouse towards the end of September, the result will be an abundance of bloom all through the winter.

C. NICHOLS.

The Manor House Gardens, Ormesby.

### RHODODENDRON VEITCHIANUM.

OF the numerous white-flowered Rhododendrons that require the protection of a greenhouse for their successful culture this is one of the best, that is when a good form is obtained, as among the plants in cultivation there is considerable variation. The flowers, which are not borne in rounded heads as in many of the Rhododendrons, but in loose clusters of two to four together, are very large, pure white, except for a small yellowish stain in the interior, and with the edges of the petals more or less crisped; in the finest forms very much so. One variety—*levigatum*—has smooth edges to the petals. The root action of *R. veitchianum* is not very vigorous, hence large specimens may be grown in proportionately smaller pots than some other kinds. The flowers are faintly scented, so in this respect the Rhododendron in question is far behind *R. Edgworthii* and the numerous hybrids raised therefrom. As a parent *R. veitchianum* has not given rise to many garden forms, but one of them is remarkable for the large size of its sweet-scented blossoms. The hybrid in question, known as *R. forsterianum*, was raised by Mr. Otto Forster by the intercrossing of this species and *R. Edgworthii*, the fragrance of the last named being transmitted to its progeny. By crossing *R. veitchianum* and *R. ciliatum* Messrs. Veitch of Exeter raised many years ago *R. exoniensis*, a comparatively dwarf free-flowering kind, whose ivory white flowers are tinged with pink on the exterior.

T.

### PRIMULA KEWENSIS.

IN reply to "A. D.'s" remarks on the above plants in the issue of THE GARDEN for March 3, I quote the following facts:

When first introduced many attempts to fertilise this hybrid with its own pollen and also that of other species were made, but, so

far as I know, without success. At this time all the plants produced "pin-eyed" flowers, i.e., having a long styled stigma.

At Messrs. J. Veitch and Sons' Feltham Nursery, in March, 1904, a solitary plant was noticed amongst a batch of plants propagated by division, with "thrum-eyed" flowers. This was pollinated with pollen from the "pin-eyed" flowers and produced fertile seeds. It was sown in due course, and some of the plants flowered in 1905. The seedlings were identical with the parents, and these produced seeds which are offered in the Chelsea firm's catalogue this year.

At the last three shows in the new hall of the Royal Horticultural Society seedling plants of *P. kewensis* have been shown by Messrs. Veitch. I noticed that the plants shown on March 6 produced both "thrum-eyed" and "pin-eyed" flowers on the same plant and in the same whorl of flowers. The lower flowers were over, and nice capsules were developing, giving promise of abundance of seeds.

So far as I know, this is the first instance of the progeny of a cross between two distinct species producing fertile seeds. Were it not for the fact that the parents of *P. kewensis* were proved by a subsequent cross made at Kew, I should have said at once that the original plant was not a chance hybrid, but an exceptionally vigorous sport from *P. floribunda*.

Kew.

A. OSBORN.

### CAMELLIA DONKELAARI.

THIS old variety of *Camellia japonica* has stood out for years in the Rhododendron dell at Kew, and it was recently in full flower there. Except in leafage it has nothing of the hard, formal flower so prevalent among garden varieties of the *Camellia*, as the bright-coloured flowers of this old kind are semi-double and quite irregular in outline. The *Camellia* is altogether hardier than is generally supposed, for given shelter from direct north and east winds it rarely suffers from the cold. The rich dark green foliage of the *Camellia* gives it a distinct appearance even without the bright-coloured blossoms. *Camellias* are moisture-loving plants, and it is useless to expect them to thrive if they are allowed to get dry at the roots during the summer months. T.

### VITIS HENRYANA.

IN general appearance this new hardy climbing plant is not unlike the old Virginian Creeper, but the leaves are even more beautiful, and there is no doubt that when it becomes well known it will prove a favourite climber. The young leaves are scarlet; as the leaves age this brilliant colouring becomes subdued to a bronze. Each leaf bears numerous silvery markings which give the plant a distinct and ornamental value. This *Vitis* was discovered in China by Dr. Henry, and was introduced to the nursery of Messrs. James Veitch and Sons, Limited, Chelsea, by Mr. E. H. Wilson. It was exhibited at the Temple Show by Hobbies, Limited, Dereham, and there obtained an award of merit.

## THE FLOWER GARDEN.

### THE SEA HOLLIES (ERYNGIUMS).

THE *Eryngiums* that owe their value as garden plants to the rich blue or silvery colouring of the stems and inflorescences have always been the more popular of the family. They are vigorous plants, of bushy habit, more refined than ornamental Thistles, and of a distinctly ornamental type, suggesting the vegetable inhabitants of deserts in their spiny, drought-resisting character than any other type of garden plants. Those kinds that take the form of various sub-tropical



LEAVES OF *VITIS HENRYANA* (A BEAUTIFUL HARDY CLIMBING PLANT FROM CHINA. REDUCED).

plants—such as *Yuccas*, *Agaves*, and *Bromeliads* generally—though now tolerably well known, have not been planted to any extent, the preference is generally, and I think rightly, given to the more hardy kinds that develop the colouring of amethyst and silver, for not only are they more effective as border plants, but much easier to grow and, with one exception, more lasting. They prefer a light soil, and if the position is the warmest the garden affords one can rely upon excellent colouring of stem and involucre. All save one hybrid are easily raised from seeds if procurable, and most will grow from root-cuttings freely if divided when the plants start to grow. Of species one could recommend for general planting,

*E. alpinum* (Alpine Sea Holly) is the best of its group. It has toothed leaves in loose rosettes 1 foot or more across, from the centre of which arise numerous silvery stems sparsely clothed with smaller green, lobed leaves, and bearing branching inflorescences. The cones are lavender tinted and very prominent. The involucre is 5 inches across, finely divided, silky to the touch, greenish when young, and developing various shades of silver, lavender, and blue as they approach maturity. The beautiful colouring and delightful lace-like fringe of the involucre is unique in garden plants. The species is comparatively long lived, and in no respect difficult to grow.

*E. amethystinum* (verum).—A plant universally confused with *E. oliverianum*, but quite distinct.

It has bluish stems, 18 inches high, freely branched; leaves 6 inches to 9 inches long, eight-lobed, the lobes cleft to the mid-rib as in some of the Maples, and provided with three rounded teeth. The leaves and bracts just below the inflorescences take a rich shade of amethyst in late summer. The flowers are small but freely produced, each consisting of a small cone as large as that of *E. planum*, but distinct from the cones of *planum*, in having prominent bracts beneath each seed. The involucre is formed of spined divisions 1 inch to 2 inches long. This plant is distinct from *E. oliverianum* in its "skeleton" leaves, smaller, more bushy, and freely branching habit, and in its much richer colouring. The whole plant takes on the richest possible colouring of amethyst in late summer. It has been described as inferior to *oliverianum*; it certainly is smaller and less robust, but in the matter of colouring and refinement *E. amethystinum* is the more interesting plant.

*E. Bourgatii* is a small growing plant resembling a dwarf *oliverianum*. The leaves, stems, and involucre are of a pale blue colouring. It is reputed to be the parent (with *alpinum*) of *E. Zabelii*, a beautiful hybrid.

*E. giganteum* (the Ivory Thistle) is a beautiful plant of biennial duration. It makes thick, Chicory-like roots, produces its leaves in dense rosettes, and has stout silvery stems, which branch freely and are furnished with numerous rigid silvery bracts, copiously spined. The cone is heavily armed with small curved spikes, and

the involucre is in the form of hard, silvery, metal-like, many-spined bracts. The rigidity and armoured condition of all the parts of this plant is indeed remarkable. It is a striking object to associate with border plants. The glistening whiteness of its flowers is very effective, and the form and character are retained in a dry state if the cone is dipped in diluted gum arabic to prevent the seeds from falling. Thus treated, these flowers make capital winter decorative material.

*E. maritimum* (British Sea Holly).—This does not thrive under cultivation very well. It grows on our stony shores in considerable quantity, and it could be made to succeed if young plants were procured and these started in rubble and sea-sand. It is long-lived in a wild state. The whole plant is armed with penetrating spines; the foliage and flowers are silvery grey.

*E. oliverianum* (the spurious *E. amethystinum* of horticulture) has a much-branched, many-headed rootstock of perennial duration, variously shaped but generally broad leaves, stout, erect-growing stems 3 feet high, copiously branched and bearing steel-blue flowers 4 inches across, the involucre of which is much divided and very spiny. The stems, upper leaf-stalks, and inflorescences are highly coloured steel-blue in late summer. The plant is altogether larger than the true *amethystinum*, and the spiny involucre is denser and more freely branched, while the leaves are three-lobed, the segments being wedge-shaped and margined with long curved spines. It is an effective garden plant, easily grown, forming huge clumps in the course of a few years, which require to be occasionally broken up to maintain flowering strength.

*E. planum* (the broad-leaved Sea Holly) is a graceful plant, in some respects finer than any other for general garden use. It forms a tuft of flat oval leaves about 1 foot across, and produces leafy, branching stems 4 feet high, bearing great quantities of small flowers a paler shade of blue than most species, but so freely borne that a clump looks practically all flowers. Its stems are stout and white, assuming the blue tint as the flowers develop. It is a sturdy border plant, and the growths, when in full flower, make excellent decorative material, for which abundant use could be found in most dwellings during both summer and winter.

*E. tripartitum* is a curious plant with much branched stems, too weak to give the necessary support. It has trifoliate leaves in small tufts like those of the bulbous *Ranunculus*, and the stems are 3 feet to 4 feet high, forming lax bushes 3 feet through, and bearing myriads of flowers, the cones of which are about the size of a Hazelnut, and surrounded by a five-rayed spiny involucre. The segments are mere spines, slightly armed on the margins, and about 1 inch long. Its colouring is blue, scarcely so rich as *E. amethystinum* or *E. oliverianum*, but quite a distinct shade of steel blue. It is a remarkable plant, more curious than beautiful, although the colouring and growth are appreciated by many who see the plant for the first time. It is quite easy to grow.

*E. Zabelii*.—A strong-growing plant of hybrid origin, closely resembling *E. oliverianum* in habit

and leafage. It has three-lobed leaves with wedge-shaped armed segments, stout stems 3 feet high freely branching below, and bears flowers 4 inches to 5 inches across, silvery in a young state, changing as the leaves become rigid to a rich amethyst, but always silvery around the cone. The involucre is less freely divided and not nearly so dense as in *E. oliverianum*, and the spines are less rigid. It is a reputed hybrid between *E. alpinum* and *E. Bourgati*, but the growth of *E. oliverianum* is so strongly marked that I think this species must have been employed. It is early in development, a feature it probably derives from *E. alpinum*, and all the leafage is white veined, quite a handsome plant, but inferior to *E. oliverianum* in its colour display.

plant, and the young growth is stifled or frozen solid. It would not matter if the plants were wholly dormant and leafless, but these *Eryngiums* make fresh growth in late autumn, just sufficient to encompass their own destruction.

Those who live in localities more favourable to their cultivation would find the following six species very interesting and novel plants: *E. Serra* and *E. agavifolium*, with sword-shaped and armed leaves, with marginal spines; *E. bromeliifolium* and *E. yuccifolium*, whose leaves resemble those of the Pine-apple; *E. eburneum*, milky white, long and channelled; and *E. pandanifolium*, whose leaves are long and narrow, forming Tritoma-like tufts, while the inflorescences are

more than ordinarily interesting, being of a violet-purple colouring and 4 feet high. One could put these plants to good use in sub-tropical bedding, while many are worth house-room.

G. B. MALLETT.

## THE SCARLET LOBELIA.

(*L. CARDINALIS*.)

THIS *Lobelia* is a lover of moisture, and well adapted for grouping in moist soil. In the water garden a bold group of the type, and also the new varieties in their various colours, make a grand feature during August and September when planted with a little compost round their roots to give them a start. This should consist of fine leaf-mould, road grit, and loam. They will soon make large plants in the moist soil, and will be much more attractive than the plants in dry borders.

## CANNAS.

CANNAS in bold groups in the water garden are very telling, and lend themselves admirably for grouping with moisture-loving plants. They are quite at home in the moist ground near Water Lily ponds, and for late summer decoration of this garden they are very beautiful when grouped in mixed or separate colours with as little formality as possible.

## AGAPANTHUS UMBELLATUS.

BOTH the blue and white varieties of this *Agapanthus* are beautiful plants for the water garden when grown in pots and plunged on rising ground near to Lily ponds. With these might be associated *Dianella longiflora*, *D. revoluta*, and *Moraea robinsoniana*. This latter plant is rather shy-flowering, but its graceful arching foliage is its great charm.

W. J. TOWNSEND.

Sandhurst Lodge Gardens.

## THE SIBERIAN FLAG.

THIS is the common name for *Iris sibirica*, a very pretty species found in many parts of Europe and Northern Asia. Of vigorous habit, it grows to a height of from 2½ feet to 3 feet, with graceful, grass-like leaves and tall, slender, flower-scapes, the latter being crowned with pretty blue flowers. In addition to the type there are several varieties of which *alba*, with white flowers, and *orientalis*, with blossoms much larger than those of the type, are



THE SIBERIAN FLAG BY THE LAKE IN THE ROYAL GARDENS, KEW.

The group of *Eryngiums* whose leafage is arranged shuttle-cock fashion, forming a kind of funnel as in *Eremurus*, were they more hardy would help to give realism to garden designs wherein plants, such as *Yuccas*, some *Kniphofias*, sturdy *Bamboos*, numerous *Dipsacæ* and *Cactacæ*, are associated with boulders of rugged outline, to give some idea of the vegetation of dry regions generally, but they prove too difficult to grow for any number of years to render them useful save in particularly favourable localities. They may be capable of withstanding frosts unharmed if kept very dry, but this is not always an easy matter without lifting the plants, and in most cases promising specimens are lost from the same mishap that sometimes occurs to *Eremurus*—the leaves carry moisture to the crown of the





A HANDSOME ORNAMENTAL SHRUB (CORNUS ALBA SPÆTHII).

very effective. To succeed with this Iris, good, rich moist soil and a full exposure to sun are necessary, and, although not absolutely essential, the marshy margins of lakes, ponds, or streams, unshaded by trees, form an ideal home. At Kew several groups are to be found about the margins of the lake and Lily pond in the arboretum, where, in company with the common British Yellow Flag (*Iris Pseud-acorus*) and other plants, it is very effective during June. That water culture is not absolutely necessary, however, is evidenced by the fine bed of *I. sibirica* and varieties to be seen in the Iris garden at Kew. To succeed with this plant, deep, rich loamy soil must be provided, and if not planted in water an abundant supply should be given until well established. To increase the stock, the clumps should be divided as soon as the flowers are over.

## TREES AND SHRUBS.

### A VALUABLE ORNAMENTAL SHRUB.

(CORNUS ALBA VAR. SPÆTHII.)

OF the numerous deciduous, ornamental foliage shrubs, none have greater claims on the attention of the gardener than this, for it is particularly effective throughout the whole year, and is one of the easiest possible shrubs to cultivate. When destitute of leaves, the bright red bark is conspicuous, while, when in leaf, the colour of the foliage is unequalled by that of any other shrub. The major portion of the leaf is golden, the other part being made up of two shades of green, the green and yellow intermixing in an irregular manner. For planting in beds or masses it is very useful, while groups in beds or shrubberies have a very bright effect. Mature plants are often 5 feet to 6 feet high and as far through, but it does not attain that height quickly, and by pruning it is possible to keep it half that height with little trouble.

With regard to soil it is not fastidious, sandy loam being better than soil of a very rich nature. To increase it, cuttings of ripened wood may be inserted in the open ground in autumn in a similar manner to Currant cuttings, or branches may be layered. At Kew several large beds may be seen, the subject of the illustration being a

bed 20 feet to 25 feet across near the Temperate house. W. DALLIMORE.

### THE YELLOW-FLOWERED MAGNOLIA.

(MAGNOLIA FRASERI.)

THE yellow-flowered Magnolia, as this species might aptly be called, appears to be far from common in England, especially as a large specimen. This is to be regretted, as it forms a handsome-foliaged tree, while its blossoms are very beautiful and distinct from those of any other Magnolia. It is a native of the Southern United States, and was introduced very many years ago, Loudon giving the date of its introduction as 1786. At Kew a good-sized specimen may be found in the Azalea garden, where it blossoms freely annually from the middle of May until the end of July. It forms a round-headed tree about 18 feet high and 18 feet across, the branches reaching to within a short distance of the ground. It is a deciduous species, with large, handsome leaves, the bases of which are deeply lobed. When they first appear in spring they are bronze, and previous to falling in autumn they take on a rich brown tint. The flowers are large and yellow. When they first open they are rich in colour, becoming deep cream as they fade. They are at their best when about half expanded, as they are then cup-shaped and of very good colour. Like other Magnolias, this one dislikes disturbance at the roots, consequently it should

be placed in a permanent position when quite small. A good compost to plant in is good loam and peat in equal proportions.

W. DALLIMORE.

### ERIOSTEMON NERIIFOLIUS.

THIS pretty little Australian shrub is sometimes found doing well in the open in peaty soil in the south-west. Though now held to be merely a form of *E. myoporoides* it was formerly treated as a distinct species. Here a little plant about 18 inches in height, and as much through, has been a pretty sight for the last month, being literally crowded with blossom. The effect of the pure white, starry flowers, three-quarters of an inch across, contrasting with the pink of the unexpanded buds, is very pretty, the lanceolate leaves being almost hidden by bloom. The plant requires abundant moisture. Over the greater part of England the *Eriostemons* must necessarily be treated as greenhouse plants.

South Devon.

S. W. FITZHERBERT.

### THE MAIDEN'S WREATH OUTDOORS.

WE recently illustrated the Maiden's Wreath (*Francoa ramosa*) in a garden in New Zealand, and now show a group in a garden in Devonshire, from a photograph by Mr. S. W. Fitzherbert. It is interesting to know that this beautiful flower is hardy in England.



THE MAIDEN'S WREATH (*FRANCOA RAMOSA*) GROWING OUT OF DOORS IN THE SOUTH-WEST.



# GARDENING FOR BEGINNERS.

## SIMPLE HINTS.

**GRAFTING VINES.**—There are three methods of grafting the Vine in more or less general use. That known as bottle grafting is perhaps the most generally employed. The shoot to be grafted (the scion it is termed, while the Vine upon which it is to be grafted is called the stock) is cut from the Vine in the autumn, when the wood has ripened, and half buried in the soil in a cold house until the Vine upon which it is to be placed commences to grow in the spring. The spring is also the time of year to practise inarching or grafting by approach, another useful method. This consists in uniting two Vines as in herbaceous grafting. As it is now too late, however, to practise either of these methods, it would be inopportune to describe them in detail. The method with which we are now concerned is that shown in the accompanying illustrations, and known as herbaceous grafting. It consists in uniting two growing shoots, so that it can be done during the summer months when the Vines are in full growth. Grafting the Vine is not usually practised for the purpose of increasing the stock; this is best done by means of eyes in January, but it is useful if, for instance, of two Vines growing near each other, the one should be valuable and the other worthless. It is then an easy matter to get rid of the worthless one by grafting the valuable one upon it, eventually cutting away the shoots and branches of the former. The operation is simple. Choose two growing shoots that can easily be brought together; with a sharp knife cut a small piece from the side of each of the separate shoots, as shown by the dotted lines in the sketch. Fasten the cut portions together with Raffiatape so that on one side at least the outer edge of each coincides. Bind them together firmly with the Raffiatape and cover this thinly with clay to prevent the access of air to the parts to be united. In a month or two the union ought to be effected. The shoot of the worthless Vine should then be cut back just above the graft, and when the grafted shoot has become thoroughly established, say, in the

following year, it may be severed from its parent, and the worthless Vine be completely cut away except, of course, that portion below the graft.

**Early Stump Horn Carrots.**—Young Carrots are always appreciated, and a bed of the Stump Horn sown now on a border which is warm and well drained will prove very serviceable, and if left in the bed and protected with a thin covering of long litter when frost comes may be kept in a fresh, sweet, and tender condition all the winter. Thin to 3 inches or 4 inches apart.

**Parsley for Winter.**—A good supply of Parsley in winter is not a small matter. Seeds sown now in a position where shelter can be given will be useful not only in winter, but also in early spring, when Parsley is often scarce. Thin to 4 inches or 6 inches apart, and frequently stir the surface when the plants appear. Parsley sown now is not so liable to run to seed in spring as when sown early; this is, in fact, the natural season of sowing.

**Sowing the Hardy Primrose Family.**—The Primrose family includes the Polyanthus and Auricula, and the best time to sow is as soon as the seeds are ripe, which is usually in June. Work some leaf-mould into the bed, which should be if possible on the north side of a wall or fence. The soil should be well pulverised and thoroughly moistened before the seeds are sown. Make the ground reasonably firm, sow on the damp surface, cover with sifted soil, and shade with a mat till germination takes place.

**Pansies for Spring Bedding.**—We usually raise several thousands for autumn and early spring planting. The seeds from a good source come fairly true to colour. Those who wish their plants in separate colours, so as to have masses of one shade, may raise them in separate rows or beds. We have given up sowing outside, as we find we get a better crop of plants from sowing in boxes in a cold frame shaded during hot sunshine and kept moist. The plants should be pricked out when large enough to handle. The *Violas* or Tufted Pansies may be treated in the same way.

## TOWN GARDENING.

**A Good Town Shrub.**—What a splendid shrub the Weigela (*Dier-villa*) rosea is for the town and suburban garden, and what a delightful picture it makes in the month of June when covered, as it annually is, with its pretty rose-coloured flowers. It seems to grow with very little attention. I have a plant trained against a fence that is practically growing in a gravel walk, and each year at this season it is a mass of blossom. When it was planted it was, of course, given good soil in which to establish itself, but its roots must long ago have travelled far beyond that into the gravel path, for the latter extends to its stem. The plant is not even in a narrow border.

**Carnations.**—To encourage Carnations to grow strongly and make vigorous shoots at the base of the plants the soil should be kept loose by means of a hoe, or, in the case of

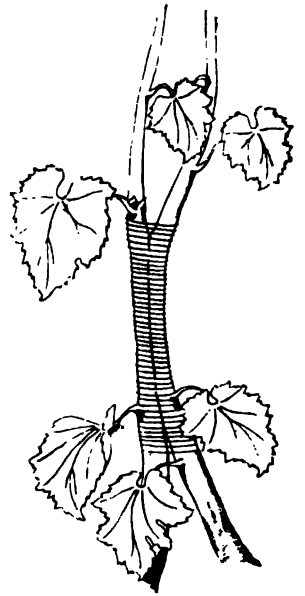
a small collection, with a handfork. This has the effect of stimulating the growths at the base of the plant.

Soot is an excellent manure for Carnations at this period, when they are throwing up their flower-spikes. A bag of soot should be immersed in a tub of water and the plants watered with the soot-water. Not only is this a good stimulant for Carnations, but it helps to keep away wire-worms, which are especially fond of these plants. Seedling Carnations raised from seed sown in the spring should be encouraged to grow freely by keeping the surface soil around them loose. Each plant should have plenty of room in which to develop, otherwise they are liable to become weak and spindling.

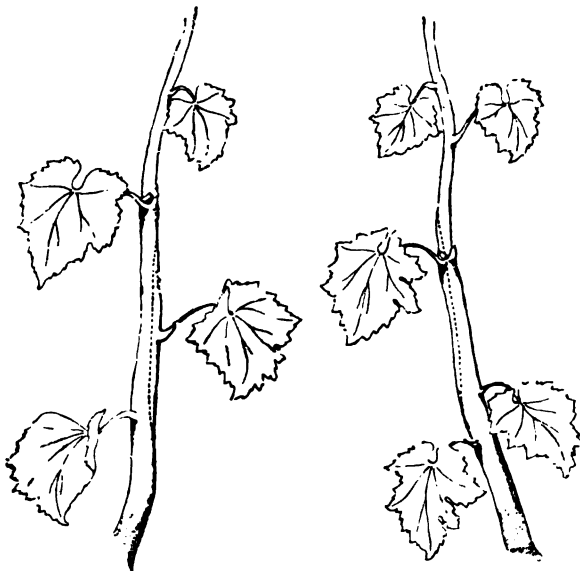
**Manuring Rose Borders.**—When one has a Rose border of quite limited extent, to which one devotes a considerable amount of time and careful attention, it is an easy matter to treat the plants too liberally in the way of stimulants and rich food. If the border is made too rich by manuring freely the results will prove almost as disappointing as if too little manure were given. With strong-growing ramblers, as, for instance, *Crimson Rambler*, one can hardly give them too rich a soil, and with bush Roses of such strong-growing sorts as *Caroline Testout*, *Ulrich Brunner*, and others, no harm would be done. Others, however, in too rich a soil have a tendency to make gross and sappy growths that do not ripen well, and consequently the following season do not flower so freely as shoots of moderate vigour and thoroughly ripened would do. Overmanuring is also sometimes responsible for the blooms with green centres that are so frequently complained of.—W.

## THE GREENHOUSE.

**The Season Advances—Shading the House.**—On the first appearance of greenfly, or, in fact, any other of the many pests, the house should be at once vaporised with the XL All Vaporiser. At that season the insects increase rapidly and inflict irredeemable damage. A slight shade for summer-flowering plants is essential, and the best arrangement is a roller blind, which can be drawn up when it is not wanted. Still, this cannot always be managed, in which case some kind of permanent shading must be adopted. Various methods are used. In some instances light canvas is tacked on, while in others the glass is painted with a material to break the rays of the sun. Of the various preparations the best is known as "Summer Cloud." It can be readily obtained, with instructions for its use, from any



VINE SHOOTS JOINED TOGETHER.



TWO VINE SHOOTS (IN FULL GROWTH) TO BE GRAFTED. EACH IS CUT AS SHOWN BY THE DOTTED LINES.

nurseryman. Whatever shading is used, it must be lightly applied, otherwise the plants will become very weak.

**Ventilation and Liquid Manure.**—Plenty of air is required during the summer months, for at that period the outside temperature is sufficient for the occupants of the greenhouse, and consequently the ventilators should be opened night and day. Of course, at that season the plants will all require more water than in winter, for not only is the weather drier, but the roots are active, and with a full burden of leaves combined with flowers a greater amount of nourishment is necessary. Liquid manure, or some of the highly concentrated plant foods now so popular, are then of great use—that is, of course, if the plants are well supplied with roots. A mistake often made by the beginner is that of giving stimulants at unsuitable times, for such help is only needed when the plants are very active.

**Syringing** is also necessary, but it requires care. While plants in general are greatly benefited during hot weather by being sprayed upon from overhead twice a day, the water, as a rule, should be kept off the flowers, and when, as often happens, almost all the plants in the structure are in bloom, it is better not to syringe. The floor, stages, and any open space should be damped with a fine rose, as in this way considerable humidity is set up, a condition of things very helpful to plants in general.

**The Greenhouse in Autumn and Winter.**—When autumn sets in, and the various tender plants are taken to the greenhouse, great care should be exercised to see that they are not kept too warm. After having been outdoors so long, there is a tendency for them to start into growth when they are removed under glass, whereas the aim should be to keep them as quiet as possible, consistent with safety from frost.

**The Frames.**—The amateur interested in his garden will require a structure of some sort either to protect his plants or bring them earlier into bloom than happens in the open garden. It may be used also to strike cuttings or raise seeds, and the simplest form of house is that known as the cold frame, which is a shallow wooden box, which may be anything from 18 inches to 2 feet at the back, and 1 foot to 18 inches at the front. In this way the glazed lights, which are made to fit on the top and thus form the roof of the miniature greenhouse, have sufficient slope to carry off the rain, and this is of the greatest importance. Nothing is more detrimental to the health of a plant than an overabundance of moisture, which drops from the glass to the leaf and quickly brings about decay. The best position for a frame of this kind is one facing due south, or, at all events, where it will get a large measure of sunlight. The plot of ground selected for standing the frame upon should be well coated with fine coal ashes, and very firm and level, and the object of this is to keep out worms. Having placed the frame in position, put a few more fine ashes in it, and this will raise the floor, so to say, above the surrounding level. A frame of this kind can be readily made with a few boards, but so many horticultural builders make a speciality of this work that it is hardly worth the trouble of constructing one at home. Span-roof frames are equally good, but, of course, somewhat more expensive.

**Plants to Grow in the Cold Frame.**—A large number of plants may be grown in this simple little structure, but perhaps the best use to which it can be put is for the growth of various hardy flowers, which, with the amount of protection thus given, anticipate by some time the natural time of flowering, and bring the sweetness of spring into the dull days of winter. Many of the ordinary bulbous plants, such as Daffodils, if

potted in September, may be kept in the frame, and be in bloom soon after Christmas. Among the things available for this treatment may be mentioned the Daffodils, Hyacinths (especially the sweet little Roman variety, which has flowers of purest white), Tulips (the early-flowering Duc van Thol in particular), the bright blue Siberian Soilla (*S. sibirica*), the attractive Chionodoxa sardensis, and Crocuses; in fact, all early-flowering bulbs are hastened into bloom through this protection. The bulbous Irises, such as *I. persica*, *I. reticulata*, and *I. Histrio*, all succeed well with ordinary care. We once saw a lot of *I. Histrio* flowering in a cold frame. They had been potted up about the end of September, and rapidly developed flowers. Roses, too, are very beautiful when treated in this way, and the little hardy Cyclamen makes a bright feature. Many other flowers are also available, and the owner of a garden will soon find a frame extremely handy for many purposes, such as to occasionally nurse a sickly plant into health, to protect any that have been divided until their roots recover from the check, and to shield tiny seedlings, or to strike a few cuttings. When the various bulbous plants above enumerated are out of flower, the frame will then be available for plants that bloom during the summer, and by the middle of April, Tuberous Begonias may be potted and placed in it, and different tender plants, such as Geraniums and Fuchsias, will be quite safe, if the precaution is taken of throwing a mat or two over the glass at night. If there is no greenhouse, Tuberous Begonias may be potted out and grown into large plants with the protection of a frame, or it may be given up during summer for propagating, as many plants will strike root readily under such conditions at that season. For cuttings of all kinds, except those of Geraniums, it will be necessary to shade the frame from the sun's rays. Throughout the winter a covering of mats over the glass at night, and even all day when frost prevails, will be very helpful, and it is a great assistance to bank up the frame all round with long stable manure, or some good protective, in order to prevent the frost penetrating the boards at the sides.

(To be continued.)

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

**GENERAL WORK.**—By now the summer bedding-out is completed. All the tender plants and late sown annuals are in their flowering quarters; pots, pans, seed-boxes, and frames are stored away, and all the litter and rubbish cleared up. The propagating department is once again tidy. All plants recently put out, if the weather is dry, must be kept watered until they are well rooted and fairly established in the beds. Even if the soil is moist, frequent light sprinklings overhead are beneficial. It is also advisable to stir the surface soil among the plants occasionally to break down the crust formed by the frequent heavy waterings. This is especially necessary where mulching cannot be done; however, mulching is recommended where it can be done without appearing untidy, as by preventing evaporation much labour is saved in watering. It may be very annoying, after having carefully mulched the various flower-beds with leaf-mould, cocoa-fibre, or manure from Mushroom beds, to find in the mornings the birds have been there first and scratched it about the grass or walks, but its value to the plants more than compensates for the time it takes to put tidy again. Peg down Ivy Geraniums, Verbenas, Phlox Drummondii, Petunias, and trailing plants generally. Good pegs for this purpose are easily and quickly made from Bracken, wherever this is plentiful.

**STAKING** is an important item. Stake neatly the plants of upright growth that are brittle and apt to be snapped off by storms and wind. Tall-growing herbaceous plants must be supported before the growth is too far advanced, as if once blown down they become twisted about, probably spoiling their near neighbours, and cannot be properly fixed up again.

**GLADIOLI.**—These are apt to get injured by winds, so that a sheltered position is usually chosen for them. Whenever the growths are 1 foot high staking must be attended to. If planted in groups on the borders it is most effectual to give each a separate stake, but if grown on a separate sheltered border by themselves, planted in rows, a stake placed at each end, with two rows of soft twine carried across, to which the flower-spikes may be secured, will be sufficient. Be careful to avoid cutting the plant by tying it too tight. The tying material should be short and stout; one often sees tarred twine used for this purpose, but this I consider very unsuitable, as it frequently cuts and spoils the flower-stems. List answers admirably.

**AQUILEGIAS** (Columbines).—These old-fashioned flowers are very beautiful, some of the species rank among the choicest of hardy flowers. Even the common forms are pretty, and may be freely used in the wild garden in the grass. The rare mountain kinds, of which *Aquilegia glandulosa* is a type, are difficult to grow. Still, apart from the difficult and "miffy" kinds, a class of hybrids with long spurs is procurable from the seedman. These are quite equal, if they do not even surpass, the best named species, and have the advantage of a constitution as strong as the common Columbine. Seeds of Aquilegias may be sown now in the open ground. The plants need no protection during winter, and will be useful next spring. It is the practice to sow under glass early in spring, and prick out into pans or boxes, harden in cold frames, and transplant into the borders in July or August. Seedlings raised by sowing now in the open produce quite as good results, but they take a season longer to attain to flowering size.

**DIANTHUS** for a display next summer should be sown now in an open situation. Cover the seeds lightly and shade till the seedlings appear.

**PANSIES** may also be sown outside now, to be thinned and transplanted when ready.

G. D. DAVISON.

Westwick Gardens, Norwich.

### ORCHIDS.

**THUNIAS.**—Most of these graceful Orchids are now producing their flower-buds and some are already in bloom. Those which are showing for flower will derive benefit from an occasional watering with weak liquid cow manure, but on no account should any be given until the flower-buds are visible, or the growths may fail to flower. Sometimes a failure in flowering them is caused through too much water at the roots before the flower-buds are set; providing the old pseudobulbs keep plump little water should be given at the roots until the buds can be felt in the young growths, but as soon as they are visible the plants should be watered freely, and occasionally with weak manure, to ensure a good head of blooms. As the plants pass out of flower they should be placed in a sunny position in the intermediate house. Water should be given freely whenever the compost becomes rather dry, until the leaves naturally decay, when water should be withheld and the plants placed in a light, dry position where the temperature will not fall below 50° during the winter.

**DECIDUOUS CALANTHES.**—Since these plants were potted in the spring they have been kept on the dry side, but now the young growths are fast developing and are rooting freely the supply of water should be gradually increased. The better-rooted plants should now receive a copious supply of water, but the later-potted ones should not be given so much until they become well

rooted. From now until the pseudo-bulbs are developed, which will be during the autumn, they require plenty of heat and atmospheric moisture. They should now be placed as near the roof-glass as possible, and syringing should be done frequently between the pots, and the plants should be shaded from strong sunshine. When the growths are well developed, and the pseudo-bulbs are beginning to form, they should be frequently watered with weak liquid manure and the shading taken off them early in the afternoon to allow the pseudo-bulbs to ripen. *Calanthes* are subject to a disease called the spot; this, I believe, is due to over-watering them before the plants are well rooted. Proof of this is that the disease usually appears in the early stage of growth and not when the growths are well advanced.

*DIACRUM BICORNUTUM* is without doubt the most beautiful of all the *Epidendrum* tribe. It is now passing out of flower, and should be given a short period of rest. When the young growths are 2 inches or 3 inches high they begin to root, and then if they require repotting it should be done. They grow best suspended from the roof, and pans with side holes only for suspending are the most suitable receptacles in which to grow them. The compost should consist of two parts fibrous peat to one of chopped sphagnum and one-fifth partially decayed Oak-leaves, intermixed with broken crook and silver sand. Pot them moderately firm to within half-an-inch of the rim and surface with chopped sphagnum. Care must be taken not to over-water them before the roots have entered the new material.

W. H. PAGE.

Chardwar, Bourton-on-the-Water, Gloucester.

## FRUIT GARDEN.

**SUMMER PRUNING.**—In many parts of the country this operation as practised on pyramids and bushes of Apples, Pears, &c., may now be undertaken. In later districts it may be delayed for another fortnight. Summer pruning, when carried out on intelligent lines, has a beneficial effect both on the crop of fruit and the welfare of the trees; besides, the work of winter pruning is considerably lessened. The summer pruning of established trees consists of cutting back to five or six leaves all the young side growths, leaving those at the end of the branch, termed the leaders, from a half to three-quarters of their full length, according to the height it is ultimately desired to extend the tree. Where the shoots are found still too thick on the spurs, the weakest should be removed. Several varieties are prone to make young shoots with a fruit-bud at the end of each. Such shoots are easily recognised, being of no great length, and the points, instead of being in a soft, growing condition, are firm and sturdy looking. These should be left at present and shortened after they have borne fruit.

**WALL TREES** should be treated in much the same manner. Older established trees frequently produce numerous young growths from the base of the spurs, and when this is the case many of them should be removed entirely, saving only sufficient for forming fresh spurs to take the place of long and unsightly ones; these, if not bearing fruit, should be removed to give room for the fresh ones to develop into young fruiting spurs.

**YOUNG TREES** should have a sufficient number of shoots retained for the formation of the leading branches and for the foundation of fruiting-spurs at regular intervals. The young shoots for extension should be nailed or fastened to the wall in their proper places while the wood is soft and easily manipulated.

**THIN OUT THE FRUITS** if necessary by removing the smallest and any that have been attacked by caterpillars or otherwise damaged, taking away at the same time any dead petals that may have remained among the fruit. A good washing with the hose or garden engine at this stage will do

much towards the ultimate clean and fresh appearance of both trees and fruit.

**APRICOTS, PEACHES, AND NECTARINES.**—The foliage having now become more fully developed, it will be easier to determine whether it is necessary to thin out the shoots further, for we can only hope for perfectly ripened wood by giving every leaf and shoot sufficient space for development. Keep the growths close to the wall. Should the weather continue dry the borders should be afforded a good soaking of water, adding a stimulant where the trees are carrying a fair crop of fruit. Mulch the borders 4 feet or 5 feet outwards from the base of the wall. See to the

**DESTRUCTION OF INSECT PESTS.**—The hose or garden engine with clear water, if applied with considerable force, will tend to keep the trees clean; but an insecticide may be required occasionally, and it should be used to prevent the various aphides or other pests becoming established on the shoots. Do not neglect to watch for any appearance of American blight, and deal with affected trees as soon as it is observed. This pest, if allowed to infest young trees, causes serious and permanent injury. Dress the affected parts with paraffin, which should be well rubbed into the crevices of the injured bark with a stumpy painter's brush. This disease is generally to be found also on the roots as well as on the branches, and may escape notice and attention when the branches are being treated. THOMAS R. WILSON.

Glamis Castle Gardens, Glamis, N.B.

## KITCHEN GARDEN.

**GLOBE ARTICHOKE.**—To ensure large and fleshy heads of Globe Artichokes liberal treatment is necessary. Being gross feeders abundant supplies of manure water can be given with advantage. Disbudding may also be performed by removing all lateral buds as they appear, leaving only the centre for use. Of course if the stock of plants will not allow of such disbudding remove only some of the smaller buds. After the heads are out for use the flower-stems should be cut down, and if all the heads are not required they should be cut, and the stems cut down so as not to allow the blossoms to open.

**ONIONS.**—Of all crops I think this one gives the best result from constant attention. Big Onions require special treatment, and should be supplied with frequent light dressings of an approved patent manure, watering it in carefully if dry. Hoe the bed after watering. The bed should not be allowed to get dry, copious supplies of water being necessary. Spring-sown Onions in the open ground should be thinned by this time as much as is intended, severe thinning not being necessary. Hoe the ground between the rows frequently to keep down weeds, and also to keep the soil loose. The Onion crop is sometimes seriously affected by the maggots of the Onion fly. As soon as the presence of this insect is detected—which is easily done by the leaves collapsing and turning yellow—all the plants attacked should be pulled at once and burnt, filling in the holes with lime and soot. During the laying season it is a good plan to dust the tops of the Onions occasionally, when wet from rain or dew, with powdered charcoal steeped in a weak solution of paraffin and water, or a stronger solution of a good insecticide, many of the eggs being deposited on the charcoal. But I have noticed that generally Onions sown early in the season are not so liable to attacks of the fly and maggot as those sown later.

**PLANTING.**—Continue to plant on all favourable occasions late Brussels Sprouts, Broccoli, self-protecting Broccoli, Cauliflowers, &c., allowing plenty of room between the plants. If the weather is very hot and planting must be done, the practice of puddling must be resorted to. Prepare a mixture of clay, soot, and water to the consistency of thick paint, and plunge the roots and lower parts of the stems of the plants into it

before planting, afterwards giving thorough root as well as overhead waterings. After watering, keep the ground well hoed.

**TOMATOES.**—Keep the growths carefully supported by ties, or nails and shreds. Do not top the plants until there are four or five clusters of fruit set on each plant. Keep all side growths pinched or rubbed out. If the foliage is getting thick or growing rank the leaves should be shortened back to half their length. See that the plants never get dry, and when fruit is well set, top-dress with manure, or give plenty of liquid manure-water. J. JAQUES.

Bryanston Gardens, Blandford.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Legal Points.**—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

## FLOWER GARDEN.

**INCREASING CERTAIN PLANTS (L. Taylor)**—Tuberous Begonias may be freely raised from seeds, which, being very minute, must be sown on a perfectly even and moist surface placed in a shady part of the greenhouse. The seeds must not be covered with soil, but kept shaded and slightly moist till growth appears. The Tobacco is easily raised from seeds in the ordinary way. Hydrangeas are increased by means of cuttings, using half-ripened shoots 3 inches long in August and September or in spring. Heliotropis is easily rooted from cuttings in sandy soil in the greenhouse, or in sand and water placed on the hot-water pipes of the greenhouse in spring. Fresh cuttings 2 inches in length are best. The Campanula, which is *C. garganica*, may be raised from seeds, increased by means of the fresh shoots that appear in spring at the base of the plant, or by division, preferably in spring. The plant is quite hardy. Fresh and young cuttings 1 inch long root readily in quite moist sand in spring in a greenhouse temperature.

**SHOWY HERBACEOUS PLANTS (Southerner).**—Two dozen good flowering plants of above are as follow; pot plants may be put out at any time, or you may plant all with safety in September or October: *Achillea Ptarmica* The Pearl, white, 2½ feet; *Doronicum plantaginifolium* exelsum, yellow, 3 feet; *Anchusa italica* Dropmore variety, rich blue, 4 feet to 5 feet; *Stenactis speciosa* superba, lilac-blue, 2½ feet; *Rudbeckia Newmanii*, gold and black, 2 feet; *Campanula persicifolia* Moerheimii, white, 2 feet; *Pyræthrum Hamlet* (single, pink), *P. Mrs. B. Brown* (single, carmine), *P. Carl Vogt* (double, white), and *P. J. N. Twedy* (double, carmine), all 2½ feet; *Iris pallida*, *Mme. Chereau*, aurea, and *Queen of May*, 2 feet to 3 feet; *Delphinium Belladonna*, 2 feet, and *caelestinum*, blue, 4 feet; *Phlox Etna*, scarlet, 2½ feet, and *P. Mrs. E. H. Jenkins*, white, 4 feet; *Trollius Orange Globe*, 2½ feet; *Kniphofia aloides*, scarlet, 4 feet; *Achillea alpina*, white, 3 feet; *Aster acris*, blue, 2½ feet; *A. bessarabicus*, blue, 2½ feet; *A. Novae-Angliae rubra*, red, 4 feet; *A. cordifolia* Diana,

white and lilac, 5 feet; white and red perennial Pea; *Pyrethrum uliginosum*, white, 5 feet; *Chrysanthemum maximum* King Edward, white, 3 feet; and *Helianthus multiflorus*, H. m. plenus, and H. m. Soleil d'Or, all yellow, 4 feet.

**LILIES FAILING (R. H. G.)**—You would probably have far greater success with your Lilies if you were to plant them out of doors in a sheltered and somewhat shaded position than you do by growing them in pots. It is more than likely that the fault lies in the watering. Plants grown in pots are naturally more liable to become dry at the roots than those growing in the open ground. Constant attention is necessary in order to keep the soil in pots in the proper state of moisture. Allowing it to become dry, even for a short time, would doubtless cause your Lilies to go blind, while keeping it too wet would prove equally injurious. The Lilies you name are easy to grow, and if you plant them out in a well-drained soil we think you will succeed with them.

**ROCKERY UNDER PINES (Pedro Diego)**—Very few plants will grow in the position you suggest, unless the conditions are made more favourable by a liberal dressing of manure deeply dug in, and then plenty of water will have to be supplied to the plants for a considerable time after being planted. A few plants likely to thrive may be found in the Sedum family, of which the best would be *S. album*, *S. spurius*, *S. rupestre*, and *S. hybridum*. Some of the Saxifrages might also grow under these conditions, the most suitable being *S. Hostii*, *S. Cotyledon*, *S. Aizoon* varieties, and *S. apiculata*. The Houseleeks (*Sempervivum*) include many plants also suitable, *S. calcareum*, *S. triste*, *S. hirtum*, and many others. Then there is *Arabis albidula*, *Alyssum saxatile*, *Iberis garrethiana*, *Aubrietia deltoidea* varieties, *Lithospermum prostratum*, Rock Roses (*Helianthemum vulgare*), and some of the *Cistus* might also be tried. For winter effect some of the handsome large-leaved *Megaseas* might be planted, as they are evergreen, and flower early in spring. Of bulbs, *Chionodoxas*, *Scillas*, *Muscari*, and *Narcissus* among others. A free-growing plant for dry positions under trees is Solomon's Seal (*Polygonatum officinale*).

**VIOLET RUST (G. Crabbe)**—Your Pansies and Violas are attacked by a fungus, the Violet rust (*Puccinia violae*). Your Mint was no doubt attacked by a fungus belonging to the same genus (*P. menthae*). I should at once take up and burn every plant which shows any sign of being infested, so as to prevent the spores being dispersed over the other plants.—G. S. S.

**ALLIUMS (W. Price)**—*Allium Moly* and *A. karataviense* never require to be lifted and dried off. They may be left in the ground for several years without being disturbed, especially *A. Moly*, which increases freely by means of bulbils. In time they get too thick, when they may be lifted in the autumn after the foliage has died down, replanting as soon as possible. *A. karataviense* does not increase so fast, and seedlings of this should be raised periodically in order to keep up the stock; in fact, many of the bulbs die after flowering.

**MONTBRETIAS (Montbretia)**—These plants belong to the natural order Iridaceae. Some of the more important groups or genera are the *Ixia*, *Watsonia*, *Freesia*, *Gladstolia*, *Babiana*, *Tritonia*, *Sparaxis*, and *Crocus*. The genus most closely allied to *Montbretia* is *Tritonia*, of which *Montbretia* is a sub-genus. There are, of course, botanical distinctions separating the groups from each other, of which the form of the perianth tube, the seed capsule, and the like are important characteristics. The plants of the varying groups differ so materially in stature, size of corn, or freedom of producing offsets, and very naturally all are not possessed of an equal degree of hardiness. We hardly know if this is the information you seek, and the real answer to your question would be the names of the groups already given.

## THE GREENHOUSE.

**PALMS AND FERNS (Calcutta)**—We are afraid that the only way in which you can take out the Palms with any prospect of success is to keep them in the pots. Your proposed plan of removing all the soil would not answer, while cutting down the leaves would, of course, kill them outright. If the ordinary soil in the pots is too heavy, you would probably get the Palms out safely if they were potted in Jadoo fibre some little time beforehand. This is very light, like Cocoanut fibre in appearance, but still it is a

complete plant food. Keep the Palms in a shady place the whole time, syringing the leaves frequently, at least twice a day, and take care that the fibre is kept moist. Messrs. William Bull and Sons, King's Road, Chelsea, know all about picking Palms. *Nephrolepis exaltata* is a splendid basket Fern, and would be more likely to survive than the Asparagus.

**PRUNING BOUGAINVILLEA (Market Hall)**—Your *Bougainvillea* may without any risk be pruned back to keep it within bounds. The time to carry out the operation is in early spring just before it starts into growth, say, about the end of February. Any cutting now would mean the removal of flowering wood.

## TREES AND SHRUBS.

**SHRUBS FOR JOHANNESBURG (Lillingstone)**—Plants tender in England, yet likely to give satisfaction in the open air at Johannesburg, are: *Acacia lineata*, *A. ovata*, *Bursera* of sorts, *Bouvardia* of many varieties, *Callistemon speciosus* (Bottlebrush Tree), *Camellia*, *Coronilla glauca*, *Cytisus racemosus*, *Diosma erioides*, *Fuchsia* of sorts, *Gardenia florida*, *Habrothamnus fasciculatus*, *Hakea suaveolens*, *Heliotropes*, *Hibiscus rosa sinensis*, *Lagerstromia indica*, *Lantana* in variety, *Leonotis Leonorus*, *Leptospermum scoparium*, *Libonia floribunda*, *Mackaya bella*, *Mitraria coccinea*, *Myrtus communis*, *Nerium Oleander*, *Pelargonium* of sorts, *Pimelia ligustrina*, *Pleroma (Lasiandra) macrantha*, *Plumbago capensis*, *Podalyria sericea*, *Poinsettia pulcherrima*, *Polygala myrtifolia*, *Rinwardtia tetragyna*, *R. trigyna*, *Rogiera cordata*, *Russelia juncea*, *Salvia* in variety, *Sparmannia africana*, *Streptosolen (Browallia) Jamesoni*, *Sutherlandia frutescens*, *Swainsona galegifolia*, and *Teocoma Smithii*. A selection of three dozen shrubs hardy in this country, yet likely to give satisfaction in Johannesburg, has been sent to you. These can all be obtained from tree and shrub nurseries here. In addition to many shrubs hardy here must, of course, be added Roses, which do grandly near Johannesburg, while *Rhododendrons* and *Azaleas* thrive in many parts of South Africa, but we should not advise planting these without knowing more particulars.

**LABURNUM WITH PURPLE AND YELLOW FLOWERS (C. Murray)**—This is *Laburnum Adami*, which is supposed to be a graft hybrid obtained by shield grafting *Cytisus purpureus* on *Laburnum vulgare*. Portions of the same tree frequently revert to one or the other of its parents. It is a well-known tree, sometimes called *Cytisus Adami*.

## ROSE GARDEN.

**BANKSIAN ROSE NOT FLOWERING (Mrs. Walter Scott)**—We are not surprised that this Rose will not blossom. It is the spurious sort, now, unfortunately, so much distributed, and is either *Jaune Serin* or a form of it. In any case, it is only fit for the rubbish heap. On examination you will find small black spines upon the wood, whereas both the yellow and white Bankians rarely produce spines. We should be inclined to bud as many of the young shoots as possible with either the yellow Bankian or the white, or both. You could doubtless procure buds from some of your friends, or purchase pot plants having buds. Bud near the base of each young shoot that is about the size of a lead pencil. Next February cut away the growths that are not budded, and those that are shorten to within an inch or two of the inserted buds, and a few weeks after this remove close up to the buds. Be careful to rub off all new shoots next summer that are not of the inserted buds, and carefully tie in these latter as they grow. You could bud a *Maréchal Niel*, *Cloth of Gold*, or any Tea or Noisette upon this plant if you so preferred. Some of the grandest *Maréchal Niels* we ever had were so budded.

**ROSE WITH GREEN CENTRE (H. Mattocks)**—Some varieties are specially addicted to this malformation, in others it is caused by frost or errors in manuring. As you say the trouble occurs yearly, we should advise you to discard the tree, as evidently it is the fault of the variety. You could bud them with a good sort, such as *Caroline Testout* or *Frau Karl Druschki*, inserting the buds in young wood made this year; then, next season, in

February, cut away all wood, save that containing the inserted buds.

**GROWTHS OF NEWLY-PLANTED ROSES DYING (A. E. Hicken)**—It would have been better had you sent us one of the shoots to examine. The dying back may be attributable to two or three causes. First, it may be drought at the root. Frequently on dry soils newly-planted Roses require water at the roots when growth commences, and it should be given liberally, but not too frequently. Then, again, the spring frosts may have so crippled the growth that the plants are now exhibiting the injury, or the plants may have been planted in soil injurious to the roots. You cannot, of course, disturb them now, so the best thing to do will be to cut the shoots back within about 1 inch of the old wood, and then await results. Many noted amateurs have been obliged to cut back their Tea Roses in this way owing to the cruel May frosts.

**WINTER DRESSING FOR ROSES (E. F. B.)**—Much could be done to mitigate insect attacks upon the Roses if you sprayed the plants with an alkali dressing such as fruit-growers employ. To make such a wash you should procure ground caustic soda, pearlash, known as crude carbonate of potash, and soft soap. Weigh out a pound of the soda, and place in a bucket half filled with water. Then add three-quarters of a pound of pearlash; stir until dissolved, and dilute to ten gallons. Meanwhile dissolve ten ounces of soft soap in boiling water, and when quite dissolved pour the soap solution into the other solution. Always add the soap last of all. Stir thoroughly, and it is then ready for use. Be careful how you apply this, so that none gets upon the hands or face. If only a few trees, you could wash these with a brush. In spring spray with Bordeaux mixture if needful. Severe pruning will get rid of many insect pests.

## FRUIT GARDEN.

**LAYERING STRAWBERRIES (C. T. Hall)**—The best time to layer Strawberries is the end of June or early July; in fact, as soon as you can conveniently get among the plants when the fruit is gathered. Some growers grow a special lot of plants for providing runners, and do not allow them to fruit at all. While this is no doubt a good practice, it is not essential. When you commence layering, cut off all the runners you do not require, so that those you layer may be as strong as possible. You need not cut them off before. Take care not to layer "blind" runners, i.e., those with no growing point or "heart." April is altogether too late for planting. This should be done in August or September, after layering. If your layers were taken last year the plants ought to fruit this year. Gooseberry bushes, and especially some varieties, sometimes collapse, as yours have done, from some cause which is not known.

**WINTER MOTH (Norwich)**—The caterpillars infesting the leaves of your Apple tree are those of the winter moth (*Cheimatobia brumata*). You should spray the tree with the following mixture: Acetate of lead (sugar of lead) 2½ oz., arsenate of soda 1½, and 1 lb. of common treacle. Place these in 10 gallons of water, stir until all are dissolved, and the mixture is ready for use. Spray every ten days until the pest is destroyed. Next spring spray just as the buds are opening. Alkali wash is not of much use unless it was applied just as the moths were crawling up the trees. During the first week in October tie bands of paper coated with cart grease round the stems of the trees about 4 feet from the ground in order to catch the female moths, which are wingless, when crawling up the trees to lay their eggs. The bands should be of strips of strong paper about 6 inches wide and long enough that the ends should overlap. When tied round the tree it is better to put a strip of grease-proof paper under the other to prevent the grease soaking through to the bark. Cart grease mixed with train oil is the best mixture to coat the bands with. The latter should be kept in working order until the end of March, when they may be removed. The great point is to keep them in a properly sticky condition; so they should be examined from time to time. I have seen such bands so covered with moths that others could pass over their dead bodies. The bands should be tied with two strings, one at the top and the other at the bottom, so as to prevent the moths from crawling underneath them. Should your tree be an espalier or attached to a stake, the roots or stakes must also be protected.—G. S. S.



**PLUM LEAVES DISEASED (J. B. T.).**—Your Plum tree is suffering from an attack of Pear gall mite. It is now too late to apply an effective remedy for their destruction this year. The mites effect a lodgment in the buds in winter, and attack the young foliage as soon as growth commences in spring. The most effective way of getting rid of them is to watch the tree closely at that time of the year and at once burn every leaf affected and the mite together. If your tree is not a valuable one, the better plan would be to dig it up after the fruit is gathered and burn it, planting a healthy young tree in its place.

**PLUM FOLIAGE DISEASED (A. Mitchell).**—There is no doubt your Plum trees are badly affected with the "silver leaf" disease. We have found that this is a disease from which once a tree suffers an attack it will always afterwards be susceptible to similar or worse attacks each succeeding year until the tree ultimately dies. Therefore, the best thing to do (if the attack is a bad one) is to root up the trees and burn them, planting healthy young trees in new soil in their place. Should the trees be large ones and only small portions affected (as is frequently the case) and the healthy part bearing good crops, then it might be advisable to spare them for a few years, cutting only the affected parts away.

**DISEASED CUCUMBER FOLIAGE (Lence).**—Your Cucumber plants are undoubtedly suffering from a bad attack of the disease familiarly known as the Cucumber spot. This is a comparatively new disease, and so far very little is known of the conditions which favour its attack, or of any effectual remedy for its destruction. Two years ago it was very bad in a garden in which we were interested, and in a very short time it destroyed a large house which at the time was in full profit. Last year it also made its appearance in the middle of a house near the top ventilators. By dusting with sulphur and lime in equal parts, and by keeping the house dryer and giving more air, its spreading was checked, and it did very little harm afterwards. You might try the same means, but we fear it has taken too strong a hold on your plants for a cure to be effected.

**YOUNG PEAR FRUITS FALLING (Corham).**—The Pear Midges (*Diptera pyraura*) is no doubt responsible for the damage done to your young Pears. This midge deposits its eggs inside the Pear flowers as the buds expand, and are thus securely protected from harm, as any insecticide applied at this stage would be equally fatal to the blossom itself. The only way to destroy the midges, and also to reduce its numbers in succeeding years, is to pick off every affected fruit and burn it and the midges together. These are so small as scarcely to be distinguishable to the naked eye. By persevering in this course, the garden may be rid of this pest in time. But the worst of it is that this is one of the winged species of midges, and therefore if your neighbours' trees are affected in the same way, and they do not take the same precaution as yourself for their destruction, your labour will have been more or less lost. Concerted action in a district is necessary.

**PEAR TREE LEAF BLISTER MITES (Norwich).**—The leaves of your Pear tree are attacked by the Pear tree blister mite. Any of the leaves which are badly infested should be picked off and burnt and the tree sprayed with the following mixture: 1 lb. flowers of sulphur mixed with enough water to form a cream, 6 lb. soft soap dissolved in 2 gallons of boiling water; stir the two well together and add 12 gallons of water, mixing all together thoroughly. Next spring, just before the buds begin to open, spray with the same mixture or with a solution of one part of paraffin emulsion to six parts of water, and be sure that the terminal buds are wetted, as the mites are probably there if nowhere else. In the case of a tree against the wall it may be difficult to make the spray reach the back of the shoots, but it should be done. Spraying should be so carried out that the back of the leaves receive the insecticide, spraying their upper surface only is not of much use.

## KITCHEN GARDEN.

**POOR GROWTH ON POTATOES (Enquirer).**—Your Potato plants with the old or seed-tubers attacked certainly show that your soil is largely infested with grub or wireworm, as the bases of the seed-tubers have been largely eaten into holes. Still, the plant and root growth is fair and apparently healthy, though not robust. The soil evidently needs a good lime dressing, and before you plant Potatoes next year have a dressing of lime at the rate of a bushel per rod worked into it in February. That will help to destroy much insect life. Of course, the plants sent have been lifted too early to enable young tubers to be formed, and no doubt had they been left yet another month small tubers would have been found on them. None the less, we see in the samples sent exactly what is now so widely complained of in relation to southern-grown seed tubers, that they are over-ripe or too starchy, hence do not in new growth produce that strength or robustness found from sets obtained from northern districts, where the cooler climate is less conducive to ripeness and rather creates in the tubers more sap. This aspect of Potato culture is one of the most important problems in

relation to gardening that is now presented. Efforts are being made through experiments in planting tubers lifted last year before ripe, that is, while the tops were green and tuber skins tender, beside tubers of some varieties and breadths, but not lifted until quite ripe in the autumn, and so far it is found that growth on the former is materially stronger than on the latter. Again, old sets of over-ripe tubers now rarely decay after being planted, and poor growth and crops always result. When immature or more sappy tubers, especially Scotch tubers, are planted they always decay, and the crop is always better. In this direction you can experiment for yourself next year.

**POTATOES FOR EXHIBITION (W. G. Wycombe).**—You can put either Duke of York or Royal Kidney as early, and Duchess of Cornwall as late kidneys. Reading Rascal as early, and Vicar of Leisham as late-coloured rounds. For early white rounds use Sutton's Satisfaction, and for late rounds either tubers of the Factor, Discovery, Warrior, or E. dorado. For early coloured kidney pink, Beauty of Hebron would be best. We do not know Red Robin under that name, but if it be a kidney, then use that. For a late coloured kidney none can be better than King Edward VII. You could best assist your Onions to grow by giving them a moderate watering with mild liquid manure once a week. Put a bushel of horse and hen manure into a coarse bag, and soak it for twenty-four hours in a tub, holding twenty gallons of water, before using any of the liquid. A small bag of soot may be soaked in the liquid at the same time.

## MISCELLANEOUS.

**BOOK ON ALPINES (E. B. Anderson).**—The book called "Les plantes alpine et de rocaillies" can be got at Librairie Horticulteur, 84, bis rue de Grenelle, Paris. (VII.), 248 pages, 19 figures. Post free 2 francs 80c.

**SQUIRRELS (H. George).**—We can sympathise with you in the loss of Nuts you sustain through the squirrels. We fear you have no other remedy but to shoot them. If you do so, even with an air gun, it may be safer to take out a gun licence. Primroses, if strong plants in the autumn, and planted or potted and kept in a frame or greenhouse, will commonly flower all the winter. If, however, placed in heat, quite a superfluous proceeding, leaves grow fast, and flowers are weak and poor. Snowdrops will of course flower early under glass if planted early in the autumn, and come well.

**NAMES OF PLANTS.**—Feb.—1, *Muscari comosum* var. *monstrosum*; 2, *Iris spuria* var.; 3, cannot name without flower.—G. F. Foster.—*Trifolium minus*, a common constituent of nearly all lawns, which it would be impossible to get rid of without destroying the grass also. It usually makes a soft velvety turf mixed with the grass.—Woodman.—1, *Aspidium falcatum*; 2, *Polypodium aureum*; 3, too small to name; 4, *Asplenium obtusatum*; 5, *Polypodium alpestre*; 6, *Pteris cretacea*; 7 and 8, *Pteris cretacea* var.; 9, *Polypodium Phlegopteris*; 10, *Dactylis glomerata variegata*; 11, *Pteris cretacea*; 12, cannot name without flower; 13, *Oplophorum japonicum argenteo-marginatum*; 14 and 15, specimens insufficient for identification.—F. J. J.—*Iris Thunderbolt*.—Mrs. Wyndham Breda.—*Lonicera volucrata*.—R. H. C.—4, *Artemisia Dracunculifolia*; 7, *Verbena salicifolia*.—A. C. V.—As the petals had all dropped, it is impossible to name the specimens with absolute certainty, but we believe them to be: 1, The Bird's; 2, Delicate; 3, Mrs. George Cadbury; 4, Snowdrop.—T. J. Field.—The white flower appears to be the variety *Marie Legraye*, but the other is a good seedling form of the common *Lilac*, to which no varietal name has been applied.—O. E. B.—As far as one can tell from a single leaf the Begonia is *B. sanguinea*; the flowering plant is *Iberis sempervirens*.—C. Kimber.—*Aquilegia alba*.—Medway.—The *Lilium* is *L. umbellatum* incompressible.—P. W. Harris.—We believe the variety to be *Philippine Lambert*, one of the newer miniature or Polyantha Roses.—G. E. F.—Rose Una.—H. E.—*Dimorphanthea Ecklonii* (?).—H. A. G.—*Omphalodes verna*.—J. M. B.—*Momordica*.—*Saxifraga Hostii* var. *maculata*.—T. P. Kyde.—*Dracaena crenata* (may be had from any good nursery).—R. F. Jones.—*Aspidium angulare* var. *proliferum*.—Mrs. Boyle.—*Anemone Polyantha*.—Miss Forster.—*Valeriana pyramidalis*.—T. R. Price.—*Heperia macrocalyx*; *Ornithogalum umbellatum*.—E. A. Bates.—1, *Spiraea arguta*; 2, *Mertensia sibirica*; 3, *Polygonum bistorta*; 4, *Silene vallesia*; 5, *Eriogonum alpinum*; 6, *Phlox subulata* var.; 7, *Saxifraga hypnoides*; 8, *Saxifraga muscoides atropurpurea*.—Porch.—*Chama fruticosa*.—W. E. B.—*Listera ovata* (Tway Blade).—M. Martin Leach.—*Ulmus campestris* var. *viminialis*.—R. H. C.—1, your *Leslia purpurata* is a very good; 2, a very good form of *Cattleya Mossii*; 3, *Brassia maculata* var. *guttata*; 4, *Cattleya Skinneri*; 5, *Oncidium sphecoctenium*.—S. Smith.—1, *Saponaria ocyroides*; 2, *Arenaria montana*; 3, *Veronica filinalis* var. *rosea*; 4, *Veronica Teucrium* var. *dubia*; 5, *Gypsophila repens*; 6, *Scirpus cernuus* (*Isoplepis gracilis*).—Colonel Jeffreys.—*Heuchera sanguinea*, *H. hispidula*, *Thalictrum flavum*, and *Trollius asiaticus*.—H. Straw.—*Egeron philadelphicus*.—F. L.—1, *Anemone sylvestris*; 2, *L. chnitis Flos-jovis*; 3, *Lychnis Viscaria* fl.-pl.; 4, *Centranthus ruber*; 5, *Veronica gentianoides*; 6, *Helianthemum vulgare* var. —M. H. L.—*Silyrinobium angustifolium*.—T. Cold Ash.—*Homocallia flava*; *Eriochorda grandiflora*.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY.

#### SHOW OF TABLE DECORATIONS.

THE exhibition of table decorations organised by the Royal Horticultural Society, and held on the 20th inst. in the Horticultural Hall, Vincent Square, was somewhat disappointing, although the disappointment was probably chiefly due to the fact that something extraordinary was expected, whereas the exhibits proved to be of quite ordinary interest. Just as good, and in fact practically identical, displays are to be seen annually at good provincial flower shows. Nevertheless the exhibition was an attractive one, even if it contained nothing fresh or original.

The only exhibit in class one, for a dinner-table 8 feet by 4 feet decorated with any flowers or foliage, was from Mr. Henry Anstey, Horlet, West Norwood, who was awarded second prize. The flowers used were a pink fancy *Pelargonium*, *Lily of the Valley*, and *Gypsophila*, *Asparagus* and grasses being the greenery.

Several competed in class two, which was for a similar table, Orchids being excluded. The first prize was awarded to Miss L. King, Abbeydale, Coggeshall, Essex. This table was decorated with fine large blooms of a pale rose-coloured Sweet Pea, *Gypsophila* and *Maidenhair Fern* being intermixed. The flowers were arranged in "rustic" flower-holders, a large central one and several smaller stands being used; a very pretty table, but the centre was too low. Mr. Henry Anstey was second with a very effective table of scarlet and yellow *Shirley Poppies*, *Gypsophila*, *Asparagus*, and grasses.

Class three was similar to class one, except that it was open to amateurs only. The first prize was awarded to Mr. E. Beckett, Aldenham House Gardens, for a charming table of *Odontoglossum*. Its gracefully-arching racemes were most effective on the tall centrepiece, *Asparagus*, *Smilax*, and the young crimson growths of *Acer* being intermixed. The smaller glasses were filled with *Odontoglossum* and *Lily of the Valley*, each in separate glasses. Miss Agnes E. Coles, The Grove, Pinner, was second, using pink *Centaurea*, young yellow and pink *Holly* shoots and *Maidenhair Fern*, in not very pleasing association.

Class four, which was for the same-sized table (Orchids excluded), brought out a number of very pretty tables, the first prize being awarded to one that was very much crowded with yellow Spanish *Iris*, *Asparagus Sprengeri*, *Gypsophila*, *Smilax*, and yellow *Aquilegia*. A few dots here and there of red *Geum* hardly added to its attractiveness. Miss M. D. Watson, 17, Landdowne Road, Cheltenham, was second; she used *heliotrope* and pink Sweet Peas, with *Maidenhair Fern*, arranged in silver vases.

For a table 6 feet by 4 feet, decorated with *Roses* and *Rose foliage* only, the first prize was won by Mr. W. Hayward, Kingston-on-Thames, who had a tall centrepiece and small mounds of *Roses* on either side. The salmon-pink, rose, and the bronze and crimson foliage associated well. The Grosvenor Floral Company, 30, Chapel Street, Belgrave Square, were second, using a vase of similar colouring.

For three vases of any flowers or foliage (Orchids excluded) Mr. G. A. Clark, The Nurseries, D. ver, was first with a vase of light-coloured *Island Poppies*, and young crimson growths of *Acer*, and two of mixed Sweet Peas; Mr. G. H. Sage, 71, Manor Road, Richmond, was second.

Three vases of any flowers or foliage (Orchids excluded) (amateurs). The first prize was won by Mr. E. Edwards, Beechy Lane Gardens, Sevenoaks, for three vases of Spanish *Iris* with grasses and other greenery; Miss Watson, Cheltenham, was second with Sweet Peas.

For a single vase of any flowers and foliage, Mr. G. H. Sage, Richmond, was first with blue and white Spanish *Iris* and *Gypsophila*; Mr. W. Hayward, Kingston-on-Thames, was second.

In the amateurs' class for single flowers and foliage, the first prize was awarded to Mr. E. Beckett, Aldenham House Gardens, the only exhibitor, for a handsome vaseful of deep pink *Carnations*.

In the amateurs' class for a single vase of flowers and foliage, Orchids excluded, Mr. C. Williamson, Wilstead, Mithelbert Road, Canterbury, was first with a beautiful vase of *Iris*, the shades of bronze, yellow, old gold, variegated *Maize*, and tinted foliage associating well; Miss Easterbrook, The Briars, Fawkham, Kent, was second for a bold exhibit of sky blue *Iris*; and Miss Edgwick, 73, King Edward's Gardens, Acton Hill, W., was third for purple *Iris* with variegated *Maize*.

The first prize in the open class for a hand bouquet of *Roses* and *Rose foliage* was won by Mr. W. Hayward, 57, Fife Road, Kingston-on-Thames, who used blooms of *Mme. Abel Chateau*; Mr. W. Tredder, Cardiff, was second with the same variety.

For a hand bouquet (*Roses* excluded) Messrs. Perkins and Sons, Coventry, was first with a charming arrangement of Orchids; Mr. Henry Anstey, West Norwood, was second using pale pink *Carnations*.

In the amateurs' class for a hand bouquet of *Roses* the first prize was won by Mr. W. J. Pritchard, Elstree; Miss Harwood, 16, St. Peter's Street, Colchester, being second.

The first prize in the amateurs' class for a hand bouquet (*Roses* excluded) was won by Mrs. A. F. Harwood, Colchester. She used *Oncidiums* (yellow and brown), *Aquilegia* (yellow and red), and *Iris* (of buff and red shades); these, together with *Maidenhair Fern* and *Asparagus*, made a most dainty exhibit, described on the card as the best bouquet in the show; Mr. Beckett, Aldenham House Gardens, was second with a bouquet of Orchids in variety.

In the open class for a bridal bouquet Messrs. Perkins and Sons, Coventry, won first prize with a charming arrangement of white Phloxes, Odontoglossums, and pale green growths of Asparagus.

For a bridal bouquet (Orchids excluded) Mr. Henry Anstey, West Norwood, was first.

In the open class for a basket of Roses and Rose foliage Messrs. Perkins were first with a handsome exhibit; Mr. W. Hayward, Kingston-on-Thames, was second.

For a basket of Orchids with any foliage (open) Messrs. Perkins were also first. Their arrangement contained many beautiful Orchids, and was well set up. Messrs. Perkins were also first for a basket of any flowers and foliage, showing Carnations in variety. Mr. W. Treeder, Cardiff, was second. Two exhibitors in this class had removed the anthers from their Lilliums; of this the judges wrote "We do not like the mutilated Lillies."

In the amateurs' class for a basket of Roses and Rose foliage Mrs. Williamson, Canterbury, was first with an excellent arrangement of Liberty Rose.

In the amateurs' class for a basket of any flowers and foliage Mrs. Brewster, 12, St. Peter's Street, Canterbury, was first with a handsome exhibit of Fuchsia and suitable greenery. Miss Easterbrook, Fawkham, Kent, won second prize with an attractive basket of Dioscorea and a few Solanums. There were no entries in the classes for fireplace decorations.

Mr. W. Treeder was first in the class for any floral design not included in the schedule. Mr. Treeder's exhibit took the form of a harp. Messrs. Perkins and Sons were second.

Messrs. John Peed and Son, West Norwood, exhibited an interesting collection of rock and alpine plants in pots and pans.

Mr. Amos Perry, Winchmore Hill, N., exhibited a most interesting collection of Heucheras in several distinct varieties, Oriental Poppies, Perry's beautiful Phlox, Lilies, &c.

Messrs. Dobbie and Co., Rothesay, showed a very attractive lot of Sweet Peas, Spanish Irises, and Aquilegias. The Sweet Peas contained many beautiful varieties. Mrs. C. Foster (a new bright purple), Queen Alexandra, and John Ingram being some of the finest.

Mr. H. B. May, Edmonton, exhibited zonal Pelargoniums and a collection of stove plants.

Some very elegant ornamental tubs were shown by Messrs. Champion and Co., City Road, E.C.

Mr. J. Williams, Oxford Road, Baling, exhibited the rural table decoration.

The famous Munstead flower-glasses, in various sizes and shapes, were shown by Messrs. James Green and Nephew, 107, Queen Victoria Street, E.C.

#### LIST OF AWARDS.

**Gold medal.**—Messrs. Perkins and Sons, Coventry.  
**Silver-gilt Flora medal.**—Mr. W. Hayward, Kingston-on-Thames.

**Silver-gilt Banksian medal.**—Miss A. F. Harwood, Colchester.

**Silver Flora medal.**—Miss Anstey, West Norwood, S.E.; Mrs. Beckett, Eistree, Herts; Mrs. Williamson, Canterbury; and Mr. William Treeder, Cardiff.

**Silver Banksian medal.**—Miss A. L. King, Coggeshall; Miss Easterbrook, Fawkham; Mrs. Brewster, Canterbury; Messrs. C. Becht, Campden Hill, N.; G. D. Clark, Dover; G. H. Sage, Richmond, S.W.; E. Edwards, Sevenoaks; and W. J. Pritchard, Eistree.

**Bronze Flora medal.**—Miss M. D. Watson, Cheltenham.  
**Bronze Banksian medal.**—Miss A. E. Coles, Pinner; Miss K. T. Sedgwick, Acton Hill; the Grosvenor Floral Company, Belgrave Square, S.W.; and Mr. E. Beckett, Eistree.

#### THE YORKSHIRE GALA.

ONCE again this great flower show of the North has been held, and proved quite a success in spite of the unfavourable spring for all things in the farm and garden. We must congratulate the secretary for the perfect arrangements and the grand exhibition brought together.

The Orchids, as usual, attracted much attention, especially the class for a table 12 feet by 5 feet, the winners being the well-known firm of Messrs. Cypher and Sons, Cheltenham. The arrangement was of a very high order of merit. The plants from Mr. J. Robson of Altrincham proved an excellent second.

Messrs. Cypher also scored in the next class, which was for ten Orchids in bloom, and also proved winners in the class for six. We must also congratulate Mr. Barker, gardener to Mr. W. P. Burkinshaw, Hensale, who was second to Messrs. Cypher in both these classes. Throughout the amateur classes Mr. Burkinshaw was conspicuous, and his exhibits contributed greatly to the beauty of the show.

The groups were a very pleasant feature of the exhibition. In the chief class the prizes were offered for a group not exceeding 300 square feet, and the premier place was won by Mr. Donoghue, gardener to Mr. J. Pickersill, Westwood, Leeds. Rambler Roses formed an interesting feature of this display. Mr. W. A. Holmes, Chesterfield, was second, but he was first in the next class, which was for a group of 200 square feet.

We fear the love for exhibiting specimen stove and greenhouse plants declines year by year. There was a falling off on this occasion, and Messrs. Cypher and Sons were the principal prize-winners.

Among miscellaneous indoor flowers we may note the display of zonal Pelargoniums from Mr. B. Keightley, gardener to Mr. H. E. Leatham, York, which was first in the class for these; Mr. Crowther's show Pelargoniums; and the excellent first prize exhibits of twelve zonal Pelargoniums and six decorative varieties of the same family from Mr. H. Pybus.

A very fine first prize group of Roses, arranged for effect, came from Mr. J. D. Hutcheson, Kirby Mousdale, and in the class for Carnations Mr. J. Pickersill won with a group of great merit. We must also mention the first prize group of Fuchsias from Mr. J. W. Clarke of York. Gloxinias and Begonias were also well shown.

One of the prettiest groups in the show came from Messrs. J. Backhouse and Sons, Limited, York, who, in the class for an arrangement of hardy flowers, had a most interesting exhibit containing a little pond, to show how beautiful certain plants are when in such a position. It was deservedly given the first prize. Messrs. Artindale, who were second, also showed well. Mr. Pybus secured the first prize for twenty alpine and hardy flowers with a praiseworthy exhibit. Mr. J. Nicholson of York won Messrs. James Backhouse and Sons' special prize for alpine plants.

#### ROSES.

It is, of course, rather early to expect a great display of Roses, but many beautiful flowers were to be seen, and it remained for Mr. George Mount of Canterbury, who has been showing Roses so finely in London, to secure the chief awards. It may be called, as far as the Roses were concerned, a "Mount" show, as this exhibitor was first in the classes for seventy-two, forty-eight, and thirty-six. As might be expected, the first prize for twelve white or yellow went to Messrs. G. Prince and Sons of Oxford. Garden Roses were well shown in the class for twelve bunches of garden varieties by Mr. J. Mollender, who was first.

We must commend the beautiful and interesting collection of twelve bunches of stove and greenhouse flowers from Mr. Searle, gardener to the Marquis of Northampton. They were not arranged as the flowers used to be on boxes, but in glass vases.

Messrs. Harkness and Sons, Bedale, showed out hardy flowers extremely well, and were awarded the first prize in the class for a collection in a space 15 feet by 6 feet.

The hand and bridal bouquets of Messrs. Perkins and Sons, Coventry, were much admired.

#### FRUIT.

This made one of the most interesting features of the show. The chief class was for a table of ripe fruits, and Mr. J. H. Goodacre, gardener to the Earl of Harrington, added another to his many triumphs by winning the first prize with, among other fruits, splendid samples of Rivers' Early Neectarine. Mr. Goodacre was again first for ten sorts, with Mr. McPherson, gardener to the Earl of Londesborough, second, this exhibitor, however, beating Mr. Goodacre in the class for six sorts.

Mr. Goodacre was first not only for four dishes of fruit, but also for three bunches of Black Hamburg Grapes and the best scarlet-fleshed Melon. Beautiful Peaches, which won the prize in the class for six, were shown by Mr. Williams, gardener to the Earl of Fife, Duncombe Park. The finest Strawberries came from Mr. Alderman, gardener to Mr. J. D. Ellis of Worsnop.

#### VEGETABLES.

Mr. Gibson, the Duke of Portland's gardener at Welbeck showed the best six varieties, especially worthy of mention being the pods of Centenary Pea. Mr. Searle, gardener to the Marquis of Northampton, was second, but first in the class for vegetables in which the prizes were offered by Messrs. E. Webb and Son, Stourbridge, from seeds supplied by this firm.

#### TRADE EXHIBITS.

Without these flower shows would lose much of their beauty, and at York they are always a feature. A gold medal was won by Messrs. Kent and Brydon of Darlington, who had a group of rare charm, both in arrangement and in the variety of plants exhibited. There were rock plants naturally shown, Rhododendrons, Carnations, and other plants, a group worthy of the firm who staged it.

A gold medal was awarded to Messrs. William Cutbush, The Nurseries, Hightgate, for a miscellaneous group, in which we noticed superb Carnations, and the three exquisite rambler Roses—the new single crimson-flowered Hiawatha, Lady Gay, and Mrs. F. W. Flight.

The splendid Orchids from Messrs. Charlesworth and Co., Heaton, Bradford, also received a gold medal, and the display was worthy the distinction. It is impossible to mention all the rare species and hybrids shown on that occasion.

Flowers, bouquets, and decorative plants generally were finely shown by Messrs. James Backhouse and Son, Limited, York, to whom a gold medal was awarded.

A similar award was made to Messrs. E. P. Dixon and Sons, Limited, Hull, for their interesting variety of ornamental trees and shrubs.

The Peonies from Messrs. B. H. Bath, Limited, Wisbech, were conspicuous for variety and the bold way in which they were exhibited. Silver medal.

The Gloxinias from Messrs. Webb and Son, Stourbridge, were awarded a silver medal.

A similar award also went to Messrs. Jarman and Co., Chard, for a miscellaneous and most interesting collection, in which were their lovely new Centaureas, zonal Pelargoniums, and Stocks.

Perhaps as fine as anything were the Carnations and tuberous Begonias from Messrs. T. S. Ware, Limited, Feltham. The flowers were well shown in great variety. Silver-gilt medal.

Begonias and Gloxinias were the chief flowers in the exhibit of Mr. A. L. Gwilliam, New Eatham, who was awarded a silver medal.

Zonal and Ivy-leaved Pelargoniums, well grown, came from Mr. V. Slade, Staplegrave Nurseries, Taunton.

The following each received a Banksian medal:

Mr. A. F. Dutton, Iwer, Bucks, for a neat collection of the rarer Carnations.

Messrs. E. Smith and Co., Worcester, hardy flowers and Bamboos among other plants.

Messrs. John Peed and Son, Norwood, London, Caladiums and Gloxinias.

Mr. John Forbes, Hawick, Pentstemons and Phloxes.

Messrs. William Ollbran and Son, Altrincham, Begonias of the crested class, and the lovely Lobelia tenuifolia, besides other things.

Pansies (Violas) were displayed by Messrs. William Artindale and Son, Nether Green, Sh. field.

Horticultural sundries came from Messrs. W. Wood and Son, Limited, Wood Green, London.

Insecticides of various descriptions came from Messrs. McDougall Brothers, Manchester.

Mr. Don, Park Row, Nottingham, showed plant tubs.

Among amateur exhibits the place of first importance must be given to Mr. G. Yeld, Clifton Cottage, York, for hybrid Day Lilies and Irises.

#### FLOWER SHOW AT BIRMINGHAM.

A show arranged by the Birmingham Botanical and Horticultural Society took place at the Botanic Gardens, Edgbaston, on the 13th inst.

Messrs. Charlesworth of Bradford staged a fine exhibit of Orchids, a silver-gilt medal being awarded. Most prominent among the collection were Phalaenopsis violacea (which received an award of merit), Cattleya Claudia, Epidendrum Wallisi, Lælio-Cattleya Fascinator, L.-C. canhamiana, and L.-C. King Edward VII.

Mr. Cypher of Cheltenham was awarded a silver medal for a collection of choice Cyrtipediums and Cattleyas. Among the Cyrtipediums was noticed a fine plant of the beautiful Cyrtipedium Maudslayi, which was given an award of merit.

Messrs. Sander and Sons of St. Albans were awarded a silver medal for a fine collection of Orchids, most noticeable among them being well-grown plants of Lælio-Cattleya canhamiana, Maxillaria sanderiana and Phalaenopsis cooksoniana.

A good exhibit of Orchids came from the Right Hon. J. Chamberlain's collection, Highbury. They were admirably staged by Mr. Mackay, the Right Hon. gentleman's Orchid grower. A silver-gilt medal was awarded the exhibit.

G. Kenrick, Esq., Edgbaston, was awarded a bronze medal for a collection of Orchids.

Messrs. John Waterer and Sons, Limited, Bagshot, were awarded a silver-gilt medal for a fine display of Rhododendrons.

Mr. W. Sydenham, Tamworth, received a silver medal for hardy cut flowers.

Messrs. Bakers, Wolverhampton, were also awarded a silver medal for hardy cut flowers.

Mr. C. H. Herbert, Acocok's Green, was awarded a silver medal for plants in pots and hardy cut flowers.

Messrs. James Randall and Sons, Shirley, were awarded a silver medal for a fine exhibit of Tree Carnations.

Mr. J. E. Knight, Wolverhampton, was awarded a bronze medal for plants in pots and hardy cut flowers.

Messrs. Gunn and Sons, Olton, were awarded a silver medal for Sweet Peas and hardy cut flowers.

E. Wilson King, Esq., Edgbaston, received a cultural commendation for a group of Gloxinias arranged with Ferns.

#### THE HORTICULTURAL CLUB.

AFTER the usual monthly dinner of this club, held at the Hotel Windsor on the 12th inst., and presided over by Sir John T. D. Llewellyn, Bart., a very interesting address was given by Mr. A. E. Brooke-Hunt, of the Board of Agriculture, descriptive of the inception, progress, and present position of horticultural and agricultural education in the British Isles. Apparently so far as State aid to and interest in rural education of this class are concerned little or nothing was done anterior to 1888, when the munificent grant of £5,000 was made in furtherance of such knowledge, and even of this the bulk was absorbed in dairy interests rather than those of horticulture. From this point the lecturer detailed the spread of interest and the somewhat sporadic rising of colleges, institutions, and executive bodies about the country under the stimulus and guidance of the Board of Agriculture, and showed that a good deal of healthy work has been done in the way of awakening the interest of the young in gardening. From the lecturer's remarks it was abundantly obvious that great strides had been made in the direction of agricultural and horticultural state aid, and that the work was steadily progressing.

On the other hand, however, it was clear to his hearers that the results obtained could bear no satisfactory comparison with those attained by the United States of America with their long lists of some sixty or seventy agricultural experimental stations, or with the organizations of other countries whose treasures appear to be less firmly closed than ours to the appeals of the far-seeing practical scientist. "No funds" is the constant cry on this side, and hence the bulk of progress is due to private enterprise. In the subsequent discussion Sir John Llewellyn took part, as did Messrs. J. Cheal, T. W. Sanders, C. Pearson, Owen Thomas, and others. The interesting nature of the lecturer's remarks was fully recognised, as was the importance of such education as a factor in repopulating the rural districts by qualifying the rising generation to utilise the land. Sir John Llewellyn considered that every country boy should know how to grow a Potato and every country girl how to cook it, the two things typifying classes of knowledge at once of domestic and agricultural value. A hearty vote of thanks concluded the meeting.

## ROYAL HORTICULTURAL SOCIETY.

THE Royal Horticultural Hall was well filled on Tuesday last, the 26th inst. The groups of flowers were very beautiful and varied.

## ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, R. Brooman White, de B. Crawshaw, H. Little, W. B. Hall, A. A. McBean, G. F. Moore, F. Monteith Ogilvie, W. H. White, H. A. Tracy, W. Bolton, H. J. Chapman, Walter Cobb, Harry J. Veitch, Francis Wellesley, R. G. Thwaites, Arthur Dye, H. G. Alexander, and H. Ballantine.

Major Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucester (Orchid grower, Mr. H. G. Alexander), exhibited a handsome group of Orchids. *Cattleya gigas* was finely shown; *Laelia tenebrosa* Westonbirt variety, with bronzed sepals and petals and purple lip, is very handsome; *Sobralia Holfordii*, a deep rose-coloured flower with yellow throat; and *Sobralia Amesiae*, primrose and fawn, were represented by fine plants. *Oncidium sarcoodes*, *O. macranthum*, *Thunbergia Marshallii*, *Cattleya gaskelliana* alba, and *Sophro-Cattleya Leila* var. *opercula*, rich deep rose, were handsome Orchids in this group. Gold medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited *Cypripedium Maudslayi* magnificent, various fine forms of *Cattleya Mendellii*, and *C. Mossiae*. *C. Mossiae* Bronze Queen (with beautiful frilled purple and old gold lip), *Dendrobium Bensoni* xanthinum, *D. clavatum*, and *Cypripedium niveum* were shown. Silver Banksian medal.

H. L. Bischoffshelm, Esq., Warren House, Stanmore (gardener, Mr. Ellis), exhibited a magnificent lot of *Cattleyas*, chiefly forms of *Cattleya Mossiae* and *C. Mendellii*, *Laelia purpurata*, *Odontoglossum crispum*, and others being interspersed. This collection of *Cattleyas* filled half a long table. Silver-gilt Flora medal.

J. B. Joel, Esq., Northway House, Potter's Bar (gardener, Mr. May), exhibited some exceptionally fine plants of *Cattleya gigas*, together with *Laelia tenebrosa* and *Cattleya Leopoldii*. *Cypripedium rothschildianum*, *Northway* variety was a splendid plant. Silver Flora medal.

Messrs. Stanley and Co., Southgate, N., showed several beautiful *Cattleyas*, for instance, *C. Mossiae* var. *triumphans*, *C. Mossiae* *Wagenerii*, *C. M. reinckiana*, and *C. F. W. Wigan*.

Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne (gardener, Mr. Chapman), showed *Odontoglossum crispum* *Terpsichore*, *O. ardentissimum* *Sibyl*, *O. c. mundanum*, and *O. c. Medusa*, all handsome blotched or spotted flowers.

Sir Trevor Lawrence, Bart., Burford (Orchid grower, Mr. W. H. White), showed a small group of very interesting Orchids, botanical certificates being awarded to three of them. *Hunlethia coccinea* with large drooping yellow flowers, *Aerides Lobblii* Burford variety, and *Thunia Marshallii* alba were three of the most showy.

## NEW ORCHIDS.

*Sobralia Holfordii*.—A very handsome flower, with immense lip. The colouring of the whole flower is deep bright rose, the throat entrance being white, and the throat yellow. Shown by Major Holford, C.I.E., C.V.O., Westonbirt, Tetbury (Orchid grower, Mr. H. G. Alexander). First-class certificate.

*Cattleya Whitei splendissima*.—A flower of rich and decided colouring. The sepals and petals are uniform dark rose, while the lip is rich crimson-purple. At the base of the column the lip is marked with yellow and gold. From Major Holford. First-class certificate.

*Odontoglossum Queen Alexandra Carmen*.—A large flower, the sepals being heavily blotched with chocolate bars upon a yellow ground. The lip is large and handsome, the lower part white, the upper heavily marked with purple. *O. triumphans* and *O. harryanum* were the parents of this hybrid. Shown by de B. Crawshaw, Esq., Sevenoaks. Award of merit.

*Thunia Marshallii alba*.—A very beautiful flower, pure white, with lemon yellow lip. From Sir Trevor Lawrence, Bart., Burford. Award of merit.

*Cattleya Mossiae Mrs. A. Goodson*.—A curious flower, the sepals and petals being blotched and marked with purple upon a lilac-white ground. The lip is rich crimson-purple. Shown by H. B. Goodson, Esq., 85, West Hill, Putney. Award of merit.

*Sobralia Amesiae*.—A flower of soft and attractive colouring. The sepals and petals are fawn and rose, while the large lip is of deeper shades of the same colour, the throat being rich yellow. Shown by Major Holford. Award of merit.

## FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. H. B. May, George Paul, T. W. Turner, C. J. Salter, Charles Jefferies, Charles Dixon, C. E. Pearson, C. E. Shea, William Cuthbertson, W. P. Thomson, W. J. James, John Green, James Hudson, J. T. Bennett-Peck, H. J. Jones, H. J. Cuthbert, R. C. Notcutt, J. W. Barr, James Walker, Amos Perry, R. Hooper Pearson, and John Jennings.

Messrs. B. R. Cant and Sons, Colchester, showed a fine group of Roses in large bunches. Nancy Christy, Mrs. O. G. Orpen, Irish Glady, Mme. J. Hill, Mrs. B. R. Cant, Dr. J. Campbell Hall, and many others were good. Silver Banksian medal.

Messrs. T. Cripps and Sons, Tunbridge Wells, put up a nice group of ornamental foliage of various shades of colour.

Messrs. George Bunyard and Co., Maldstone, had a large group in which *Delphiniums*, *Irises*, *Peonies*, &c., were well shown. *Iris Black Prince*, a variety of germanica, was very fine. *Galliardias* were also very bright, and with *Poppies* of the bracteatum and nudicaule types rendered the group very striking. Silver Banksian medal.

Mr. Amos Perry, Winchmore Hill, filled a similar space; here choice *Liliums* included *monadelphum*, *pomponium*,

*parviflorum*, and others; *Ornithogalum pyramidale*, *Morina longifolia*; a collection of single *Pinks* was an attraction; *Water Lilies*, &c., made up a good group; several varieties of *Heuchera* were notable for their distinct shades. Silver Flora medal.

Messrs. Barr and Sons, Covent Garden, filled a table 50 feet in length. *Irises* of all types, *Delphiniums*, *Peonies*, and *Irises* were very fine, and a choice assortment of other hardy plants was also included in this imposing exhibit. Silver Banksian medal.

Messrs. Kelway and Son, Langport, showed a fine lot of *Peonies* and *Delphiniums*; of the latter *Sailor Prince*, *Paragon*, *Dorothy Kelway*, and *Miss Fox Pitt* were notable for their long spikes and bright blue shades. The *Peonies* included both single and double varieties of great merit, the flowers large and the colours rich. Bronze Flora medal.

Messrs. Cheal and Sons, Crawley, exhibited a group in which the *Thalictrodes* in several varieties were pretty, *Polemoniads* in different colours, *Sweet Peas*, and other hardy plants were attractive. Bronze Flora medal.

The Craven Nursery Company, Clapham, Yorkshire, set up an neatly-arranged small rockery, *Campanulas* and *Saxifragas* were the leading features, with a few small Japanese *Maples* at the back, and several good *Heucheras*.

The Misses Hopkins, Koutford, also had a varied exhibit of plants suitable for the rock garden, including good samples of *Kielweias* flowering freely.

Mr. G. Reuthe, Keaton, put up a large group of cut blooms and plants. *Veronicas*, dwarf alpine *Phlox*, *Campanulas*, &c., were good, the collection comprising most of the leading varieties. Bronze Flora medal.

Messrs. G. and A. Clark, Limited, Dover, were good exhibitors with *Peonies albiflora* and others, *Abutilon vitifolium*, *Pyrethrums*, *Galliardias*, *Liliums*, *Centaureas*, and *Inulas*. Silver Flora medal.

Messrs. J. Peed and Son, West Norwood, put up a large collection of *Sedums*, *Sempervivums*, and *Saxifragas*, with a background of hardy Ferns, &c.

Messrs. R. Smith and Co., Worcester, showed a miscellaneous collection of hardy flowers and foliage of handsome variegated shrubs and trees. Bronze Banksian medal.

Messrs. J. Veitch and Sons, Limited, Chelsea, had a magnificent group, consisting of *Peonies*, *Delphiniums*, *Erubra*, *Irises*, and *Heucheras*. Silver-gilt Banksian medal.

Mr. M. Pritchard, Christchurch, Hants, made a grand display with *Peonies*, *Delphiniums*, *Irises*, &c. *Scabiosa caucasica* is good for cut bloom. *Centaurea dealbata* should also be useful for market, and *Clematis recta* was another good plant, also *Gillenia trifoliata*. Silver Flora medal.

Messrs. R. Veitch and Sons, Exeter, exhibited cut specimens of hardy flowering shrubs.

Messrs. B. Wallace and Co., Colchester, had a large group, in which the *Calochortus* in several varieties were good. *Pentstemon heterophyllus*, *Water Lilies*, hardy *Orchids*, *Irises*, *Liliums*, and many other plants were also noteworthy. Silver-gilt Banksian medal.

Messrs. W. Cutbush and Sons, Highgate, made up a fine group, in which the varieties of *Campanula persicifolia*, *Verbascums*, *Liliums*, and a great variety of other pretty plants were well blended; it formed one of the most interesting groups in the hall. Silver Banksian medal.

Messrs. G. Paul and Sons, Cheshunt, had a large collection of *Peonies* and other hardy flowers, *Fremontia californica*, also *Roses* of various types. *Moss Roses* were good. Mme. Jules Gravenaux (Dijon Tea), of a bluish tint, gained an award of merit; *Souvenir de President Carnot*, *Royal Scarlet* (single), *Goldfinch* (a soft yellow of the Rambler type), and *The Dandy* were others. Silver Banksian medal.

Miss Hemus, Holdfast Hall, Upton-on-Severn, exhibited a very fine lot of *Sweet Peas*. Of these *Paradise* (a lovely shade of rose-pink), *Yellow Gem*, *Gold* (soft mauve), and *Helen Lewis* Improved were specially worthy of note. *Zoe* and *Evelyn* Hemus were also distinct and handsome.

Mr. Henry Eckford, Wem, staged a splendid collection of *Sweet Peas*. Upwards of fifty vases were filled with choice sorts, *Evelyn* Byatt, *King Edward VII.*, *Henry Eckford*, *Horace Wright*, *Romolo Pissani*, *Queen Alexandra*, *Maud Guest* (new, white with bluish tint), and *Miss Eckford* (rosy salmon). Silver Flora medal.

Messrs. Dobbie and Co., Bothersey, exhibited *Antirrhinum Cottage Maid*, a soft pink, very fine spikes of bloom. An award of merit was given for this. *Echebolzia erecta* compacta *Mandarin*, a lovely orange with a bronzy red shade, was another good thing from the same firm.

Mr. F. H. Goddard of Putney showed *Verbena* *May Goddard*, a fine deep blue, with white eye.

Messrs. Veitch and Sons, Chelsea, had a fine group of greenhouse flowering plants. *Gloxinias*, *Streptocarpus*, *Gerberas*, *Eriogonum macranthum*, &c., were good. Other groups of *Streptocarpus*, *Gloxinias*, and *Kalanchoe* were also shown.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, set up a nice collection of *Carnations*, chiefly of the *Malmalson* type. *Lady Mary Hope*, a fine bloom of an apricot shade (new), *Mrs. Trelawny*, *King Oscar*, and *Lady Rose* were especially good. Bronze Flora medal.

Mr. C. F. Waters, Balcombe, Sussex, exhibited a very fine collection of *Carnations*. *King Arthur*, *Lady Rose*, *William Robinson*, *Mercia*, and the old bluish *Malmalson* were particularly handsome. Silver-gilt Flora medal.

Messrs. Cannell and Sons, Swanley, contributed a fine group of *Carnation* *Duchess of Marlborough*, *Newton Don* (a new pink *Malmalson*), a large collection of *Caoli*, and *Antirrhinum* *Fire King*, *Defiance*, and *Brilliant* *Rose*, three very good varieties. This firm also had groups of *Carnations* and *Cactaceous* plants. Silver Banksian medal.

Messrs. J. Waterer and Sons sent a group of *Kalmia latifolia*, the plants being well flowered. Silver Flora medal.

Messrs. J. Laing and Sons, Forest Hill, a fine group of *Caladiums* and *Crotonas*, useful sized plants of the best sorts for table work. The *Caladiums* were well-grown plants of fair size. Silver Flora medal.

Messrs. W. Paul and Sons showed *Rose Warrior*. Several baskets of cut blooms were very good, also a pretty seedling *Briar* with bronzy yellow single flowers.

Messrs. Carter Page and Co., London Wall, exhibited a remarkably fine lot of *Cactus Dahlias*, the best we have seen so early in the season. *Lucifer*, *Alexander*, *Kromhilda*, *Butterfly*, *J. B. Riding*, *Mont Blanc*, *Pearl*, and *Rufus* were among the best varieties. Cut blooms of about fifty varieties of *Fuchsias* were an interesting feature from the same firm. Bronze Flora medal.

The Guildford Hardy Plant Nursery set up a nice collection of hardy flowers and plants. Silver Banksian medal.

Mr. F. A. Lays, Epsford, showed *Carnation King Edward VII.*, a free-flowering border variety of a salmon shade.

J. A. Young, Esq., Putney (gardener, Mr. G. H. Street), exhibited a nice group of *Felargoniums* of the show and decorative types; the plants were clean, healthy, and well flowered. Silver Banksian medal.

Mr. L. E. Russell, Richmond, put up a group of *Dimorphandria mandchuricus variegatus* and *Hedera Helix arborescens*.

Messrs. William Ball and Sons, Chelsea, showed a large collection of *Iris xiphoides*, *Marie Stuart*, *Prince of Wales*, *Dorothea*, *Noesgay*, *Gris Perle*, and *Cretia* were among the most distinct of the forty varieties shown.

Mr. H. B. May, Upper Edmonton, exhibited cut blooms of several *Felargoniums*, double and single varieties of the best market sorts; also *Ixora Fraseri* and *I. macrothyrsa* with a very large head of bloom.

Messrs. R. H. Bath and Co., Limited, were awarded a certificate of merit for *Peony* *M. Charles Leveque*, a very large double bluish pink, one of the best in a very fine lot. Silver Flora medal.

Mr. F. M. Bradley, Peterborough, exhibited blooms of *Rose Kathleen Brodick*, a pure white Tea of good form.

Mr. W. H. Myers, Bishop's Waltham, exhibited large bunches of *Anemone Italica* *Opal*, a pale blue form.

F. Bonney, Esq., Bagley, exhibited *Rose Cotton Pearl*, a pretty white climber.

## NEW PLANTS.

*Antirrhinum Cottage Maid*.—A flower of a charming shade of colour, soft clear pink with a blotch of yellow in the centre. The spikes of flower shown were vigorous and very handsome. Shown by Dobbie and Co., Bothersey. Award of merit.

*Rose Mrs. Jules Gravenaux*.—A large and handsome *Dijon Tea* variety, with flowers of cream fading to soft fawn with age. The buds are of good form. From Paul and Son, Cheshunt. Award of merit.

*Peony M. Charles Leveque*.—A handsome double variety of bluish colouring. The petal edges are crinkled, a characteristic which adds to the charm of the flowers. Shown by Messrs. R. H. Bath, Limited, Wisbech.

## FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. Joseph Cheal, T. W. Bates, H. Parr, S. Mortimer, A. Dean, A. R. Allan, William Pope, E. Lye, John Braham, George Kelf, J. Davis, P. C. M. Veitch, F. Q. Lane, J. Willard, Owen Thomas, and W. Poupard.

*Strawberry Kentish Favourite*, a large Strawberry of somewhat coarse appearance and fair flavour, was shown by Messrs. R. H. Bath, Limited, Wisbech.

*Miss Violet Fellows*, *Shuteham Park*, Norwich (gardener, Mr. Lewis Smith), showed a new white-fleshed *Melon* *Shuteham Park Favourite*, but no award was made.

Mr. C. Foster, University College Gardens, Reading, showed a collection of culinary *Peas*, the pods of *Sutton's Early Giant*, *Sutton's Dwarf Defiance*, and *Thomas Laxton* being very good. Cultural commendation.

A seedling culinary *Pea* called *James Grieve* (William the First x *Gadus*) was shown by Miss Dodge, Loseley Park, Guildford (gardener, Mr. Steward). The same exhibitor showed a collection of *Potatoes*, *Lettuces*, *Carrots*, and *Turnips*. Vote of thanks.

## EAST ANGLIAN HORTICULTURAL CLUB.

THE June monthly meeting, held at the Shirehall Hotel, Norwich, brought a good attendance of members to hear Mr. T. B. Field of Ashwellthorpe give an exposition of the duties of judging. He dealt with the many points and rules to be observed in this phase of gardening, and said that encouragement and invitation should be extended towards young gardeners to assist at local and other shows. He invited discussion upon the matter, which was spiritedly taken up by Messrs. J. E. Barnes, H. Goudé, F. Williams, H. Perry, E. Peake, J. C. Abel, L. Smith, and others. Mr. W. Smith, gardener to E. J. Caley, Esq., *Pine Banks*, *Torpoe*, set up a grand collection of twenty-four varieties of *Bearded* and *Beardless* *Irises*. Mr. F. Williams, gardener to Louis Tillet, Esq., M.P., *Causton*, and Mr. W. Shoemith, gardener to F. W. Harmer, Esq., *Cringford*, both staged hardy North American *Cypripediums* in their collections of herbaceous flowers. A nice lot of *Carnation* *Hayes Scarlet* was brought up by Mr. F. Noley, gardener to E. G. Buxton, Esq., *Thorpe*, and Mr. T. B. Field staged a bunch of that charming old *Rose* *Fortune's Yellow* cut from the open. Other exhibits were well represented in the monthly competition classes.

## PUBLICATIONS RECEIVED.

The Grand Magazine and the Strand Magazine for July, both excellent numbers, and Part VI. of the *Atlas of the World's Commerce*, which should be in every commercial office. It is an atlas, indeed, for everyone. *Fry's Magazine* and *Wide World Magazine* for July (Messrs. George Newnes, Limited, Southampton Street, Strand, London).

\* \* The Yearly Subscription to THE GARDEN is: *Ireland*, 6s. 6d.; *Foreign*, 8s. 6d.







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